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Waban D. Hedges

Georgia -

Delaware

PRODROME
OF
A WORK TO AID THE TEACHING
OF THE
VEGETABLE MATERIA MEDICA,
BY THE
NATURAL FAMILIES OF PLANTS,
IN THE
THERAPEUTIC INSTITUTE
OF
PHILADELPHIA.

1470
BY THE INSTRUCTOR,
WILLIAM P. C. BARTON.

PRINTED FOR THE USE OF THE PUPILS
OF
THE INSTITUTE.

1833

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PRINTED AT THE ATHENIAN BUILDINGS, FRANKLIN PLACE.

TO MY PUPILS

THIS TRIFLE,

TO AID THEM IN

THEIR ATTENTION TO MY LECTURES,

WITH RESPECT FOR

THE ASSIDUITY AND REGULARITY

WITH WHICH

THEY HAVE FOLLOWED THE COURSES,

AND THANKS FOR THE

Interest in the Success of the Therapeutic School

THEY HAVE

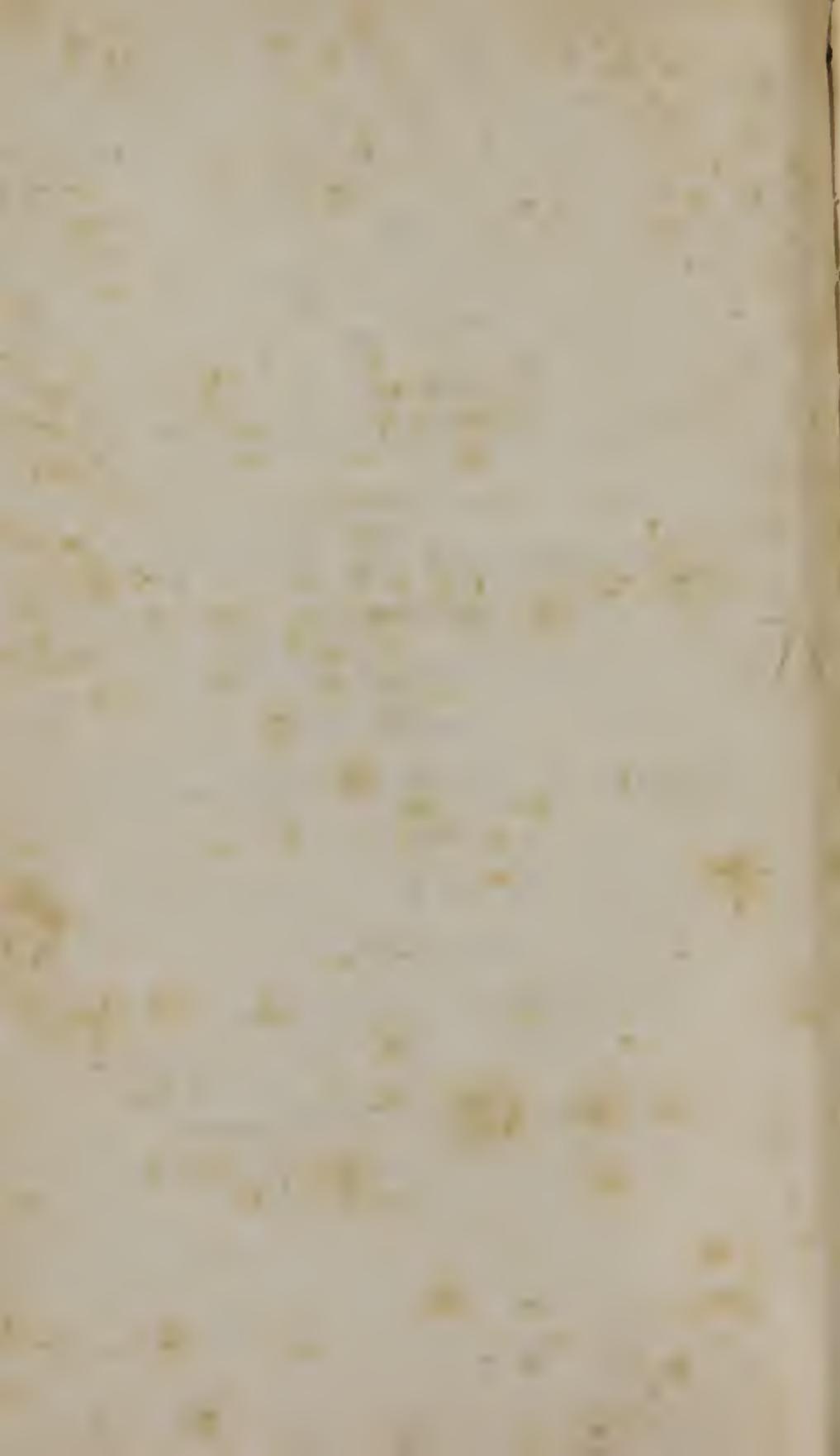
UNANIMOUSLY AND ZEALOUSLY EVINCED,

IS INSCRIBED,

WITH THE KINDEST FEELINGS,

AND

BEST WISHES FOR THEIR PROFESSIONAL SUCCESS.



P R E F A C E.

IT is known to the numerous pupils who have attended my Lectures on Botany, Materia Medica and Toxicology, and undergone a course of examinations on those subjects, that the method pursued is different from that followed by any other teacher of Materia Medica. It is only within a short time, that they seem fully to have appreciated the usefulness and practical tendency of this method. They have, accordingly, given a most flattering attendance on the lectures, delivered in my own house, without any other patronage than that emanating from the importance of the subject itself, and their conviction of the simplicity and usefulness of the peculiar method of teaching it. A work is in preparation, which is adverted to in the title of this scrap, embracing a complete system, but the want of leisure has as yet prevented me from completing it. Until this shall be finished, the outlines now offered, may prove useful.

The beauty of the Natural System, as a study for the pupil of Medical science, desirous of obtaining clear and permanent ideas of the Materia Medica of Vegetables, is its foundation in Nature, or natural structure and configuration—its ease, by reason of the family resemblance of the individuals of any family—and its simplicity, compared to the complex classification generally pursued.

The impressions on the mind of the student, of the power and effects of medicines, are strong and continued; because

the association of one medicine of a family, brings fully to the memory a quick thought on the properties of every member of the same family. If, as in some families, different, and even diverse proximate medicinal principles, are found to pervade the different genera of the family, still there are many points in which they will all be found to agree; and this unity, in some leading characteristic effect, exists almost without exception. The ample means and opportunities of studying the subjects of this prodrome, presented in the cabinet lecture room of this Institute, will enable the student of one course quickly to make himself acquainted with its leading details, and the perpetual pupils will be able to master it thoroughly.

NATURAL SYSTEM
OF
VEGETABLES.

THERE are two great divisions.

1. *Vasculares*, or *vascular* plants, comprising all plants which have spiral vessels both in the stems and leaves, *stomata** in the cuticle, distinct flowers, and sexual organs for reproduction of the species. These are the *phœnogamous* plants, or those having visible parts for consecutive perpetuation. The *vasculares* are the flowering plants.

2. *Cellulares*, or *cellular* plants, comprising all vegetable products destitute of spiral vessels and cellular organs. These are *Cryptogamous* plants, or those which have occult organs (if any) for perpetuating their kind, invisible to us even by lenses of great power. The *cellulares* are the flowerless plants.

With very few exceptions, all the plants embraced by the different systems of *Materia Medica* of Europe and the United States, are to be found in the first division, or *Vasculares*. It is again subdivided into two sections.

SECTION I.

Exogenæ, or *Dicotyledonous* plants, or such as have distinct pith, wood, and bark, in the stem and its ramifications—leaves made up of reticulations, or of mesh-like structure—and having an embryo with two or more opposite seed lobes, which being called cotyledons, and the generality of this section of *Vasculares* having only two of these cotyledons, the whole section is characterized by this number, and called *Dicotyledonous* plants. All plants of this section grow by new layers annually deposited on the *exterior* surface.

* *Stomata*.—These are organised pores, for a purpose unknown to us; conjectured by some, for the purpose of breathing, like the spiracula of insects.

SECTION II.—(Of Vasculares.)

Endogenæ, or Monocotyledonous plants. These are such as have *no distinction* of pith, wood, and bark, in the stem, with leaves showing parallel veins, fruit having an embryo with one cotyledon only ; or, if there should be two seed lobes, they are alternate, *not opposite* as in the first section. The plants of this section grow larger by the increase of the stem by *internal* additions to it, and not by enlarging on the exterior surface as in the first section.

As the Vasculares have just been said to contain, with few exceptions, all the medicinal plants of Europe and the United States, so now it may be remarked that the first section of Vasculares, embraces about seven-eighths of the plants of the Pharmacopœas, the remaining *octant*, belonging to the second section. This will be seen by looking over the products contributed by the different natural families which follow.

The exceptions noticed of medicinal plants of Europe and the United States, which are not embraced by the first great class, Vasculares, are to be found consequently in the second, or Cellulares, and are the ferns, mosses, lichens, fuci, fungi, and algæ, which will be noticed under the natural families of Cellulares. It is well to recollect, however, that Iodine is yielded by the families of Cellulares ; and the knowledge of the parasitic lichens on the Peruvian barks, on the Cusparia bark, the false Angostura bark, and other cortices, is the surest mean of identifying the several best species and varieties, and of discriminating the poisonous Brucea anti-dysenterica, or false Angostura, from the Bonplandia trifoliata, or true Angustura or Cusparia bark. Other advantages will be derived from an attention to the families of the Cellulares, to the physician. His knowledge of them enables him to ascertain at first, sight the poisonous mushroom, and point out the edible ones. For this reason after the families of the second section of Vasculares are noticed in the Lectures according to this prodrome, then the families of the Cellulares will be discussed, and the toxicological genera of fungi pointed out, together with an exhibition, by diagrams and drawings, of the structure and colours severally characteristic of poisonous and innocent and esculent fungi fuci and algæ.

NATURAL FAMILIES YIELDING MEDICINES.

FIRST GREAT DIVISION OF VASCULARES.

SECTION A.—DICOTYLEDONOUS PLANTS.

Anacardiaceæ	Guttiferæ	Ranunculaceæ
Amentaceæ	Gentianeæ	Rosaceæ
Apocyneæ	Geraniaceæ	Rhamneæ
Asclepiadeæ	Juglandeæ	Rutaceæ
Aristolochiæ	Lobeliaceæ	Scrophularineæ
Amygdaleæ	Laurineæ	Solaneæ
Artocarpeæ	Leguminosæ	Stellatae
Aurantiaceæ	Lineæ	Spigeliaceæ
Amyrideæ	Labiatæ	Saxifragæ
Bignoniaceæ	Magnoliaceæ	Styraceæ
Borragineæ	Meliaceæ	Simarubaceæ
Berberideæ	Myrtaceæ	Salicariæ
Calycantheæ	Malvaceæ	Salicineæ
Chenopodeæ	Myristiceæ	Ternstromiaceæ
Caryophylleæ,	Monimieæ	Thymeleæ
Coniferæ	Menispermeæ	Umbelliferæ
Cruciferæ	Nelumboneæ	Urticeæ
Cucurbitaceæ	Oleaceæ	Ulmaceæ
Cinchonaceæ	Oxalideæ	Valerianeæ
Cupuliferæ	Podophylleæ	Vaccineæ
Compositæ	Phytolacceæ	Violaceæ
Convolvulaceæ	Papaveraceæ	Vites
Caprifoliaceæ	Pomaceæ	Wintereæ
Dipterocarpeæ	Polygaleæ	Zygophylleæ
Diosmeæ	Polygonæ	
Euphorbiaceæ	Piperaceæ	
Ericæ	Pyrolaceæ	

SECOND GREAT DIVISION OF VASCULARES.

SECTION B.—MONOCOTYLEDONOUS PLANTS.

Asphodeleæ,	Colchiaceæ,	Irideæ,
Aroideæ,	Gramineæ,	Ilicineæ,

Melanthaceæ,	Palmæ,	Smilaceæ,
Scitamineæ,	Marantaceæ,	Orchideæ.

SECOND GREAT DIVISION.—CELLUARES.

Sec. A. Fillicoideæ.—Fern-like Plants.

Sec. B. Muscoideæ.—Moss-like Plants.

Sec. C.—Aphyllæ. Leafless Plants; families Musci Hepatic, and Characeæ.

PROXIMATE VEGETABLE PRINCIPLES* AND ALKALOIDS
YIELDED BY THE NATURAL FAMILIES DESCRIBED IN
THE LECTURES OF THIS SCHOOL:

1. AMANATINE, from Fungi.

1.* ACONITA, from natural family Ranunculaceæ.

2. ASPARAGIN, from Apodeleæ.

2.* ATROPIA, from Solaneæ.

3. BRUCIA, from Xanthoxyleæ, as in *Brucia ferruginia*, and from Strychnææ, as in *Strychnos Nux Vomica*, which contains also Strychnia.

4. COLOCINTHIN, from Cucurbitaceæ.

4.* BASSORINE, from Umbelliferæ; as in *Sagapenum* and *Assafætida*, and it is also in *Gum Bdellium*, (the product probably, of an Umbelliferous plant—for this *Gum Resin* see my “Outlines” vol. 2d., p. 77.,) from Euphorbiaceæ, as in *Euphorbium*.

5. CAFFEIN, from cinchonaceæ, as in *Coffea arabica*.

5.* CYTISSINA, from Ranunculaceæ, as in *Aconitum Na-pellus*, and *Aconitum Ferox*; from Leguminosæ, as in *Cytissus Laburnum*, from which it is named; from Aristolochiæ, as in *Asarum Europeum*, or *Asarabacca*, and, probably, in our Wild Ginger, or *Asarum Canadense*.

6. CATHARTINE, from Leguminosæ; see my “Notes,” vol. 2d., p. 268.

7. CERINE—a component of wax.

8. CERASIN, 3 varieties.

a. *Astragalus tragacantha*, from Leguminosæ.

b. *Pruni Cerasi gummi*, from Amygdaleæ.

c. *Gummi Bassoræ* conjectured from a species of messem-bryanthemun, by M. Virey, (Journal Parmacie.)

9. CINCHONIA, from Cinchonaceæ, as in the Peruvian

barks, and in *Portlandia Hexandra*; from *Diosmeæ*, as in *Bonplandia trifoliata*, or *Cusparia* bark, in which it is joined with *Igasauric acid*.

9*. **CHINOIDIA**, obtained from Peruvian barks, by Dr. Serturner.

10. **CORNIA**, from *Caprifoliaceæ*.
11. **CÖNIA**, from *Umbelliferae*.
12. **DAPHNINA**, from *Thymeleæ*.
13. **DATURIA**, from *Solanæ*.
14. **DIGITALIA**, from *Scrophularineæ*.
15. **ELATINA**, from *Cucurbitaceæ*.
16. **EMETINA**, from *Cinchonaceæ*, as in *Cephaelis ipecacuanha*, *Psychotria herbacea*, and *Psychotriaemetica*; from *Violaceæ*, as in *Viola canina*, *Viola parviflora*, *Viola ibonbou*; from *Asclepideæ*, as in *Cynanchum ipecacacuanha*.
- 16*. **GUAIACINE**, from *Zygophylleæ*.
17. **GENTIANIA**, from *Gentianæ*, as *Gentiana lutea*, *G. saponaria*, *G. ochroleuca*, *G. crinita*, *G. catesbæi*, *G. Chirayita*, (of Roxburg.)
18. **HEMATINA**, from *Leguminosæ*.
19. **HYOSCIAMIA**, from *Solanæ*.
20. **INULIN**, from *Compositæ*.
21. **JALAPINE**, from *Convolvulacæ*.
22. **LUPULIA**, from *Urticeæ*.
- 22*. **MEDULLIN**, from *compositæ*, the pith.
23. **MANNITE**, from *Oleaceæ*, as *Fraxinus Ornus*; other species of *Fraxinus* yield manna, as *F. rotundifolia*, *F. excelsior*; it is also yielded by the *Tamarisk*, and a species of *Eucalyptus*.
24. **MORPHIA**, from *Papaveraceæ*.
25. **NARCOTINA**, from *Solanæ*.
- 25*. **NICOTINA**, from *Solanæ*.
26. **PIPERINA**, from *Piperaceæ*.
27. **PICROTOXINE**, from *Menispermeæ*.
28. **POLYCHROITE**, from *Irideæ*.
29. **QUINIA**, from *Cinchonaceæ*.
30. **QUASSINA**, from *Simarubaceæ*.
31. **SALICINA**, from *Salicineæ*.
32. **SCILLITINA**, from *Asphodelacæ*.
33. **SENNIA**, from *Leguminosæ*, (see *Cathartine*.)
34. **SOLANIA**, from *Solanæ*, as in *Solanum Dulcamara*, the only species as yet from which it has been obtained.

35. STRYCHNIA, from Apocyneæ.
 SUBERIN, from Cupuliferæ, as cork-tree.
 36. TANNIN, from Cupuliferæ, and nearly all the families yielding astringency.
 37. TIGLIN, from Euphorbiaceæ.
 38. ULMIN, from Ulmaceæ.
 39. VERATRIA, from Colchiaceæ, as in *Colchicum autumnale*; and Melanthaceæ, as in *Veratrum album*, *Veratrum viride*, *Veratrum sabadilla*.

NATURAL FAMILIES YIELDING EXCITANTS.

Umbelliferæ, {
 Myrtaceæ, {
 Aurantiaceæ, {
 Rubiaceæ, {
 Labiatæ, {
 Aristolochiæ, {
 Aroideæ, {
 Scitamineæ, {
 Laurineæ, {
 Winteræ, {
 Meliaceæ, {
 Myrtaceæ, {
 Irideæ, {
 Myrtaceæ, {
 Piperaeæ, {
 Laurineæ, {
 Scitamineæ, {
 Myristiceæ, {
 Laurineæ, {
 Dipterocarpeæ, {
 Piperaceæ, {
 Cruciferaeæ, {
 Compositæ, {
 Monimieæ, by the bitter extractive of the roots.
 Apocyneæ, by the Strychnia yielded by the roots and fruit.
 Zygophylleæ, by the guaiacine they contain.
 Fuci, by the Iodine and its preparations obtained from the whole tribe.
 Fungi, by the amanatine they contain.

NATURAL FAMILIES YIELDING DIRECT SEDATIVES.

Laurineæ, { and all which by distillation, yield hydrocyanic
 Pruni, { acid—laurel water.

Amygdaleæ, by the volatile oil of the kernels of the drupe or stone fruit.

Solaneæ, by the empyreumatic volatile oil of the smoke of the leaves, and by the *nicotina* contained in the same.

NATURAL FAMILIES YIELDING TONIC ASTRINGENTS.

Polygaleæ, } by the tannin, combined with gallic acid in the
Polygoneæ, } roots.
Rosaceæ,

Salicariæ, } by the tannin combined with gallic acid in the
Fungi, } plants.

Cupuliferæ, by the tannin combined with gallic acid in the barks.

Ericineæ, tannin, combined with gallic acid, in the leaves.

Rosaceæ, tannin, combined with gallic acid, in the flowers.

Amygdaleæ, } by the tannin, combined with gallic acid,
Myrtaceæ, } in the fruit.

Leguminosæ, } by the tannin, combined with gallic acid,
Myrtaceæ, } in the proper juice.

Cupuliferæ, by the tannin, combined with gallic acid, in the morbid excrescences.

Leguminosæ, by the *Hematine* in the wood.

NATURAL FAMILIES YIELDING DIRECT ANTISPASMODICS.

Valerianeæ, by the fetid volatile oil of the roots.

Umbelliferæ, by the gum-resin of the Genera producing the well known drugs of this tribe.

NATURAL FAMILIES YIELDING ANTILITHICS.

Gentianeæ, *Diosmeæ*, and all those which contain the bitter principle in considerable quantity.

NATURAL FAMILIES YIELDING THE CATHARTIC PRINCIPLE.

FIRST SECTION.

That Principle operating Laxatively.

Oleaceæ, by the saccharine matter in the proper juice of one genus and the fixed oil in another.

Leguminosæ, by the saccharine pulp of the Legumes in

some, the acidulous fruits of other genera—and the fixed oil of one genus.

Amygdaleæ, by the acidulous fruits.

Lineæ, by the fixed oil of the seeds.

SECOND SECTION.

THE CATHARTIC PRINCIPLE *Operating Purgatively.*

Euphorbiaceæ, by the fixed oil of the seeds.

Amyrideæ,
Leguminosæ,
Coniferæ,
Anacardiaceæ, } by the oleo-resin they abound in.

Convolvulaceæ, } by the resin the roots abound in, perhaps
Polygonæ, } by the *Jalapine*.

Asphodeleæ, by the resin-extractive of the proper juice.

Leguminosæ, by the *Cathartine* abounding in their leaves.

THIRD SECTION.

THE CATHARTIC PRINCIPLE *Operating Drastically.*

Cucurbitaceæ,
Convolvulaceæ, } by the gum-resin contained in the fruit
Guttiferæ, } (*Pepo*, or *cucurbatus*,) of some genera;
Rhamneæ, } in the proper juice of other genera—and
Labiatae, } by the *elatina* in one genus.

Ranunculaceæ, by the oleo-resin of the root.

Euphorbiaceæ, by the acrid fixed oil of the seeds of all the genera—and by the proper juice of the herb of one genus.

Solaneæ, by the *nicotina* abounding in the leaves.

Melanthaceæ, by the *veratria* in the roots of two genera.

NATURAL FAMILIES YIELDING DEMULCENTS.

Leguminosæ, by the different gums.

Aurantiaceæ, by the gum of *Feronia Elephantum*?

Malvaceæ, roots of *Malva* tribe, leaves of *Gmelina parviflora*?—by the mucus they contain.

Lineæ, } by the mucus of the pods.
Rosaceæ, }

Leguminosæ, } by the *cerasin* they yield in some, and the
Myrtaceæ, } *sarcocoll* in other genera.

Amygdaleæ, } by the fixed oil they yield—the last giving
Oleraceæ, } *Cocos butyracea*.
Palmæ, }

Sesamum, orientale by the fixed oil and mucilage of seeds and leaves.

Marantaceæ, the roots,
Lichenes, the plants,
Orchideæ, the bulbs,
Palmæ, the pith,
Gramineæ, the seeds, } by the fecula they yield.

NATURAL FAMILIES YIELDING DILUENTS.

Gramineæ, giving barley-water, rice-water, &c. &c.

NATURAL FAMILIES YIELDING DIAPHORETICS.

Cinchonaceæ, by the Emetina they yield.

Thymeleæ, by the Daphnia they yield.

Compositæ, by the Cytissina one genus yields, (Arnica.)

Papaveraceæ, by the Morphia in opium, and its acetate, sulphate, and muriate.

Zygophylleæ, by the proper juice abounding in the medicinal genera.

Aristolochiæ,
Monimieæ,
Asclepiadeæ,
Labiatae,
Laurineæ,
Ericæ, } the roots, } by the volatile oils contained in
the herbs, } the parts designated.
the wood,
the leaves,

Solaneæ, by the Solania in the plant yielding it.

Laurineæ, } by the Camphoraceous principle with
Dipterocarpeæ, } which they abound, viz. Camphor.

NATURAL FAMILIES YIELDING DIURETICS.

SECTION FIRST.

DIRECT IN THEIR OPERATION.

Coniferae, } by the uncombined volatile oil obtained by dis-
Myrtaceæ, } tillation from the leaves of all the medicinal
genera, and the berries of one genus.

Fuci, } by the Iodine they yield on incineration.
Algæ, }

Numerous inland families, by the Potassa they yield on incineration.

Numerous families of sea-side plants, by the soda they produce on incineration.

Diosmeæ, by the oleo-resin obtained from the leaves.

Leguminosæ, by the oleo-resin obtained from the balsam yielded by one genus.

Piperaceæ, } by the oleo-resin yielded by the berries.
Coniferæ, }

Melanthaceæ, } by the Veratria, obtained from the roots.
Colchiaceæ, }

Asphodeleæ, by the scillitina obtained from the bulbs.

Smilaceæ, } the roots, } by unascertained principles they
Polygaleæ, } contain severally in the parts
Pyrolaceæ, } the leaves, } designated.
Ericæ, }

Leguminosæ, the twigs,

SECTION SECOND.

INDIRECT IN THEIR OPERATION.

Solaneæ, by the Nicotina of the leaves.

Scrophularineæ, by the Digitalia of the leaves.

Compositæ, by the Lactucarium, in the proper juice of two genera, and not as is generally supposed in one genus only.

Gentianeæ, by the Gentiania, of the different genera.

NATURAL FAMILIES YIELDING EMETICS.

Cruciferæ, by the acrid volatile oil in the seeds, and farina made from them.

Compositæ, by the acrid volatile oil in the infusion of the flowers, leaving the tonic principle insoluble (in water) behind.

Aristolochiæ, by the proximate principle cytissina, yielded by the leaves.

Cinchonaceæ, by the promimate principle emetina, yielded by the roots.

Asphodeleæ, by the proximate principle Scillitin in the bulbs.

Solaneæ, by the proximate principle Nicotina in the leaves.

NATURAL FAMILIES YIELDING ERRHINES.

Irideæ, the roots.

Labiatæ, } the herbs, the leaves, and the flowers in
Aristolochiæ, } different genera. The errhine principle in all of the above is combined with a volatile oil.

Euphorbiaceæ, } the acrid resin of the proper juice contains
Solaneæ, } the errhine principle in these 2 families.

Colchiaceæ, } the errhine principle is obtained from the
Melanthaceæ, } roots of these in the form of Veratria.

NATURAL FAMILIES YIELDING EMMENAGOGUES.

Polygaleæ, } the roots, } by the oleo-resin contained in the
Rutaceæ, } Coniferæ, the herb, } parts designated.

Rubiaceæ, by the bitter principle contained in the roots.

Labiatae, } Asphodeleæ, } by the bitter principle in the proper juice.

Ranunculaceæ, by the gum-resin in the roots of some and
the proper juice of other genera.

Valerianeæ, } the roots, } by the volatile oil contained in
Aristolochiæ, } Compositæ, the herb, } the parts designated.

Umbelliferæ, by the gum-resins yielded by the several genera.

Scrophularineæ, by the Digitalia yielded by the leaves.

Gramineæ, by an unknown principle in secale cornutum.

NATURAL FAMILIES YIELDING EPISPASTICS;

Operating in limited quantities, or by dilution, as Rubifacients.

Asphodeleæ, } Solaneæ, } by the acrid oil the plant contains.
Cruciferæ,

Myrtaceæ, } Coniferæ, } by the volatile oil they contain.

Ranunculaceæ, by the acrid oil contained in the roots.

Cruciferæ, by the acrid oil contained in the bulbs.

Thymeleæ, by the acrid oil contained in the barks.

Coniferæ, } by the oleo-resins they yield as Pix B. Gal-
Umbelliferæ, } banum; Ammoniacum.

Compositæ, by the acrid oil in the roots of pellitory and the
tomentum of the leaves as in Chinese moxa.

NATURAL FAMILIES YIELDING ESCHAROTICS.

All the families which yield on incineration potash and soda.

NATURAL FAMILIES WHICH YIELD ERODENTS.

Gramineæ, } by the refined sugar obtained from sugar
and } cane and sugar maple.
Acerineæ,

NATURAL FAMILIES YIELDING EXPECTORANTS.

Styraceæ, in the Benzoic acid.

Solaneæ, the leaves chewed, or the smoke inhaled in one genus—the herb and root in another, either by internal exhibition or inhalation of the smoke.

Coniferae, by the burning of the terebinthinate secretion, and probably the only true expectorants.

The families yielding *Emetina*, or *Scillitina*, as *Cinchonaceæ*, *Asphodeleæ*.

The family yielding the four or five fetid gums, *Umbelliferæ*.

The family producing myrrh, which is either *Amyris*, *Leguminaceæ*, or as some think *Laurineæ*. All doubtful.

The families producing the balsams, as *Leguminosæ*, *Styraceæ*.

Those producing the oleo-resins, as *Amyrideæ*, *Leguminosæ*.

Those yielding the bitter extractive, as *Labiatae*, *Compositæ*, *Lichenes*.

NATURAL FAMILIES YIELDING DIRECT NARCOTICS.

Papaveraceæ, as in *Morphia*, with meconic acid in opium and the extract of poppies—its sulphate, muriate, acetate, and citrate.

Solaneæ, as in *Atropia*, *Daturia*, and *Hyoscyamia*.

Ranunculaceæ, as in *Aconita*.

Umbelliferæ, as in *Conia*.

Scrophularineæ, as in *Digitalia*.

Urticeæ, as in *Lupulia*.

Laurineæ, { as in *Camphor*.
Dipterocarpeæ, { as in *Camphor*.

Erinaceæ, as in the unknown poisonous principle of *Rhododendron chrysanthum*, *R. maximum*, &c.

Compositæ, as in *Lactucarium*.

Auacardiaceæ, as in the poisonous principle of the genus *Rhus*.

INDIRECT NARCOTICS—spirituous or vinous preparations of the above.

Colchiaceæ, } as in Veratria.
Melanthaceæ, }

NATURAL FAMILIES YIELDING REFRIGERANTS.

Aurantiaceæ, as in the citric acid of the juicy parts of them.

Polygoneæ, } as in oxalic acid.
Oxalideæ, }

Leguminosæ, as in tartaric acid, contained in the fruit of several genera.

Pomacæ, } as in malic acid, contained in the fleshy fruits
Amygdaleæ, } of these.
Myrtaceæ,

Menispermeæ, as in the malic acid of *coccus indicus*.
(Boullay, *Jour. de Pharm.*, 1828, p. 63.)

Succulentæ, as in the malic acid with lime of *semper vivum tectorum* and several species of *sedum*.

Vites, as in malic acid in grapes.

Different Families yielding on incineration, soda and potash.

The sap of all plants yielding acetic acid, free or combined.

NATURAL FAMILIES YIELDING SIALAGOGUES.

Cruciferæ, } the S. principle is contained in the volatile oil
Aroidæ, } of the roots, leaves and seeds.

Compositæ, } the S. principle is contained in the fixed acrid
Solaneæ, } oil of the roots and leaves.

Scitamineæ, } the S. principle is contained in the acrid resin
Thymelæ, } of the roots and bark.

NATURAL FAMILIES YIELDING TONICS.

Cinchonaceæ, as in *Cinchonia*, combined with kinic acid in Peruvian barks.

Rutaceæ, as in *Cinchoia*, combined with igasuric acid in *Bonplandia trifoliata*, *cusparia febrifuga*—also in *Cinchonia*, combined with sulphuric acid in the sulphate.

Cinchonaceæ, as in *Quinia*, combined with kinic acid in some Peruvian barks and its union in the sulphate, (when chemically separated) with sulphuric acid.

Piperaceæ, as in *Piperina* combined with an acrid oil in the pepper tribe.

Compositæ, as in *Piperina*, also combined, in the flowers of *chammomile*, with an acrid oil.

Gentianeæ, as in *Gentiania*, from gentian tribe, and *Quassina*, from *chironia* and *sabbatia*.

Salicineæ, } as in *Salicina*.
Amentaceæ, }

Simarubaceæ, as in *Quassina*.

Sarmentaceæ, as in the bitter extractive of the roots of *cocculus palmatum*, or *menispermum calumba* (Columbo.)

Rosaceæ, as in the bitter extractive of the roots of *geum urbanum* or *avens*.

Lichenes, as in the bitter extractive of the whole plant *centaria islandica*.

Gentianeæ, } as in the bitter extractive of the leaves of the
(again.) } *Menyanthes trifoliata*, or *Buck-bean*.

Ericeæ, as in the bitter extractive of the leaves of *Arbutus uva ursi*.

Compositæ, as in the bitter extractive of the flowers of *cnicus benedictus*.

Euphorbiaceæ, as in the aromatic volatile oil of the bark of *croton carcarilla*, c. *Eleutheria*.

Aroideæ, as in the volatile oil of the roots of *acorus calamus*—also the family yielding myrrh, whatever it may be.

MEDICINAL PLANTS

CELLUARES.

FUNGI.

<i>Tuber cibarium</i>	
<i>Agaricus Prunulus</i>	
<i>Boletus purgans</i>	
<i>Boletus ignarius</i>	
<i>Amanita aurantiaca</i>	

LICHENES.

<i>Lecanora Parella</i>	
<i>Usnea plicata</i>	
<i>Sticta pulmonacea</i>	
<i>Boletus edulis</i>	
<i>Boletus fomentarius</i>	
<i>Cetraria islandica</i>	

ALGAE.

<i>Fucus Helminthochortos</i>
<i>Fucus vesiculosus</i>
<i>Fucus natans</i>

FILICES.

<i>Aspidium coriaceum</i>
<i>Polypodium vulgare</i>
<i>Aspidium filix foemina</i>
<i>Asplenium Rutamurarium</i>
<i>Asplenium Adiantum nigr</i>
<i>Pteris aquilina</i>
<i>Adiantum Capillus Veneris</i>
<i>Dracaena Draco</i>

Aspidium filix mas.	SMILACEAE.
Scolopendrium officinale	<i>Asparagus officinalis</i>
Asplenium Trichomanes	<i>Convallaria Polygonatum</i>
OSMUNDACEAE.	<i>Convallaria Majalis</i>
Osmunda regalis	<i>Paris quadrifolia</i>
AROIDEAE.	<i>Smilax Sarsaparilla</i>
Acorus Calamus	<i>Smilax aspera</i>
Arum maculatum	<i>Smilax China</i>
PIPERACEAE.	ASPHODELEAE.
Piper nigrum	<i>Allium sativum</i>
Piper longum	<i>Allium Porrum</i>
Piper Cubeba	<i>Allicum Ascalonicum</i>
GRAMINIEAE.	<i>Scilla maritima</i>
Saccharum officinarum	<i>Lilium candidum</i>
Panicum italicum	<i>Aloe vulgaris</i>
Andropogon Schoenanthus	<i>Aloe succotrina</i>
Andropogon Nardus	SCITAMENEAE.
Sorghum vulgare	<i>Canna indica</i>
Avena nuda	<i>Alpinia Galanga</i>
Arundo Donax	<i>Curcuma longa</i>
Secale Secale	<i>Amomum Zerumbet</i>
Triticum sativum	<i>Menyanthes trifoliata</i>
Triticum Spelta	<i>Amomum Cardamomum</i>
Triticum repens	<i>Amomum Zingiber</i>
Lolium temulentum	<i>Amomum Zedoaria</i>
Hordeum vulgare nudum	<i>Amomum augustifolium</i>
Hordeum zeocriton	<i>Amomum Grana paradisi</i>
Ozyra sativa	<i>Curcuma rotunda</i>
Panicum miliaceum	<i>Kemphæria rotunda</i>
Zea mays	ORCHIDEAE.
MELANTHACEAE.	<i>Vanilla aromatic</i>
Veratrum Sabadilla	<i>Orchis mascula</i>
Veratrum album	<i>Orchis maculata</i>
Colchicum autumnale	<i>Orchis morio</i>
PALMAE.	IRIDEAE.
Calamus Draco	<i>Iris florentina</i>
Cocos nucifera	<i>Crocus sativus</i>
Elaeis guineensis	ARISTOLOCHIAE.
Sagus vinifera	<i>Asarum europaeum</i>
Ceroxylon andicola	<i>Aristolochia longa</i>
Phoenis dactylifera	<i>Aristolochia rotunda</i>
	<i>Aristolochia clematitis</i>

Aristolochia Serpentaria

JUGLANDEAE.

Juglans cinearea

Juglans regia

CUPULIFERAEAE.

Quercus Robur

Quercus Suber

Quercus pedunculata

Quercus coccifera

Corylus Avellana

Castanea vesca

Fagus sylvatica

CONIFERAE.

Pinus sylvestris

Pinus Pinea

Pinus Pinaster

Abies Larix

Abies excelsa

Abies vulgaris

Abies balsamifera

Taxus baccata

Juniperis Sabina

Cupressus pyramidalis

Juniperus communis

Juniperus Lycia

SALICINEAE.

Salix alba

Betula alba

Polupus nigra

Liquidambar Styraciflua

PHYTOLACCEAE.

Phytolacca decandra

CHENOPODEAE.

Salicornia herbacea

Salsola soda

Salsola kali

Salsola Tragus

Salsola sativa

Chenopodium ambrosioides

Chenopodium anthelmintic.

Camphorosma monspeliaca

Beta vulgaris

Spinacia oleracea

POLYGONEAE.

Rumex Acetosa

Rumex scutatus

Rheum Rhaponticum

Rheum Palmatum

Polygonum hidropiper

Polygonum Fagopyrum

Erythraea centaurium

Rumex Acetosella

Polygonum bistorta

Polygonum aviculare

Rheum undulatum

LAURINEAE.

Laurus nobilis

Laurus Culilawan

Laurus Malabatrum

Periploca graeca

Persea Cassia

Persea Sassafras

Persea gratissima

Persea Cinnamomum

Persea Camphora

Persea Pichurium

Evodia aromatica

CONVOLVULACEAE.

Convolvulus arvensis

Convolvulus Scammonia

Cuscuta europaea

Convolvulus Turpethum

Convolvulus sepium

Convolvulus Soldanella

Convolvulus Jalapa

Convolvulus Scoparius

Convolvulus Mechoacanna

MYRISTICEAE.

Myristica moscata

MAGNOLIACEAE.

Magnoli tripetala

M. Aculata

M. Glauca

THYMELEAE.

Daphne Mezereum
Daphne Cncorum
Daphne Laureola
Daphne Gnidum

SALICINEAE.

Santalum album

ULMACEAE.

Ulmus campestris

U. fulva

URTICEAE.

Artocarpus incisa
Ficus Carica
Dorstenia Contrajerva
Anchusa tinctoria
Urtica dioica
Cannabis sativa
Urtica urens
Humulus Lupulus

EUPHORBIAE.

Euphorbia Antiquorum
Euphorbia Lathyrus
Euphorbia Canariensis
Euphorbia ipecacuanha
Euphorbia Helioscopia
Euphorbia officinarum
Croton Lacciferum
Croton Tiglum
Crozophora tinctoria
Jatropha Maniota
Buxus sempervirens
Ricinus communis
Phyllanthus emblica
Hippomane Mancinella
Jatropha Curcas
Mercurialis annua

PLUMBAGINEAE.

Plumbago europaea
Statice Limonium

PLANTAGINEAE.

Plantago marjor

Plantago Psyllium

SOLANEAE.

Atropa Belladonna
Physalis Alkekengi
Solanum Lycopersicum
Solanum tuberosum
Solanum Dulcamara
Solanum nigrum
Capsicum annuum

BORRAGINEAE.

Anchusa officinalis
Pulmonaria officinalis
Borago officinalis
Parietaria officinalis
Lithospermum officinale
Cynoglossum officinale
Simpyle officinale

BIGNONIAE.

Bignonia Catalpa

GENTIANAE.

Gentiana lutea
Gentiana
Gentiana ochroleuca
Gentiana saponaria
Gentiana crinita
Gentiana Catesbeiana

ASCLEPIADEAE.

Cynanchum Monspeliacum
Cynanchum Vincetoxicum
Cynanchum Arguel
Cynanchum Ipecacuanha
Strychnos Nux vomica
Strychnos Ignatia
Strychnos Colubrina
Strychnos Tieute
Evodia aromatica
Stillingia sebifera
Siphonia elastica
Costus arabicus

OLEACEAE.

*Fraxinus excelsior**Fraxinus ornus**Olea Europea*

JASMINEAE.

*Phyllirea latifolia**Ligustrum vulgare**Jasminum officinale**Jasminum grandiflorum**Orchis fusca*

STYRACEAE.

*Styrax officinale**Styrax Benzoin**Morus nigra*

ERICAEAE.

*Chrysanthuin**Rhododendron**Arbutus unedo**Matinum**Arbutus Uva ursi**Serapias lingua*

PYROLACEAE.

*Pyrola rotundifolia**P. Chryantha**Chimaphila umbellata**Chimaphila maculata*

LOBELIACEAE.

Lobelias

COMPOSITAE.

*Lactuca sativa**Lactuca scariola**Lactuca virosa**Sonchus oleraceus**Taraxacum dens Leonis**Scorzonera humilis**Scorzonera hispanica**Tragopogon porrifolium**Cichorium Intybus**Cichorium Endivia**Carthamus tectorius**Carlina acaulis**Arctium majus**Cynara Scolimus**Cynara Cardunculus*
Centaurea centaurium
Carduus Marianus
Serratula tinctoria
*Eupatorium cannabinum**Eupatorium Ayapana*
Balsamita suaveolens
Santolina chamaecyparissus
Spilanthes oleraceus
*Spilanthes Acmella**Tanacetum vulgare*
Artemisia Abrotanum
Artemisia campestris
Artemisia judaica
*Artemisia contra**Artemisia Santonica*
Artemisia pontica
Artemisia Absinthium
Artemisia caerulescens
*Arteisiam Dracunculus**Conyza squarrosa*
Gnaphalium Stoecas
*Chrisantemum Parthenium**Matricaria Chamomilla**Bellis perennis*
Inula Helenium
Inula dysenterica
*Tussilago Farsara**Arnica montana**Anthemis Pyretrum**Anthemis nobilis**Achillaea Millefolium**Achillaea Ptarmica**Achillaea Ageratum**Helianthus tuberosus**Calendula officinalis**Milleria Contrayerba*

VALERIANA.

*Valeriana officinalis**Veleraiana celtica*

STELLATAE.

*Rubia tinctorum**Gallium verum*

<i>Gallium verum</i>	<i>Conium maculatum</i>
<i>Rubia tinctorium</i>	<i>Selinum Galbanum</i>
<i>Asperula odorata</i>	<i>Peucedanum officinale</i>
<i>Valantia cruciata</i>	<i>Pastinaca sativa</i>
	CINCHONACEAE.
<i>Psycotria emetica</i>	<i>Ferula communis</i>
<i>Cephaelis Ipecacuanha</i>	<i>Ferula graveolens</i>
<i>Coffaca Aarabica</i>	<i>Ferula Asafetida</i>
<i>Cinchona Condaminea</i>	<i>Ferula Opopanax</i>
<i>Cinchona ovalifolia</i>	<i>Ferula Orientalis</i>
<i>Cinchona magnifolia</i>	<i>Ferula persica</i>
<i>Cinchona cordifolia</i>	<i>Angelica Archangelica</i>
<i>Cinchona lanceolata</i>	<i>Angelica sylvestris</i>
<i>Cinchona glandulifera</i>	<i>Imperatoria Ostruthium</i>
<i>Nauclea Gambir</i>	
	CUCURBITACEAE.
	<i>Ecballion elaterium</i>
<i>Sambucus nigra</i>	<i>Charantia Balsamina</i>
<i>Sambucus Eubulus</i>	<i>Cucumis sativus</i>
<i>Sambucus canadenis</i>	<i>Cucumis melo</i>
	<i>Cucumis Colocynthis</i>
	<i>Cucurbita Pepo</i>
<i>Panax quinquefolium</i>	<i>Cucurbita citrullus</i>
<i>Aralia nudicaulis</i>	<i>Bryonia alba</i>
	<i>Bryonia dioica</i>
	GOSSULLAREAE.
<i>Eryngium campestre</i>	<i>Ribes rubrum</i>
<i>Sanicula europaea</i>	<i>Ribes nigrum</i>
<i>Sison Ammi</i>	<i>Ribes grossullaria</i>
<i>Sison Anisum</i>	
<i>Carum Carvi</i>	
<i>Oenanthe crocata</i>	CACTEAE.
<i>Oenanthe phellandrium</i>	<i>Cactus coccinillifer</i>
<i>Apium gravcolens</i>	
<i>Apium Petroselinum</i>	
<i>Mcum foeniculum</i>	
<i>Meum Athamanticum</i>	
<i>Cachris maritima</i>	MYRTACEAE.
<i>Coriandrum sativum</i>	<i>Eucalyptus resinifera</i>
<i>Cicuta virosa</i>	<i>Melaleuca Leucadendron</i>
<i>Aethusa cynapium</i>	<i>Myrtus communis</i>
<i>Daucus Carota</i>	<i>Myrtus Pymenta</i>
<i>Chaerophyllum sativum</i>	<i>Myrtus caryophyllata</i>
<i>Ammi majus</i>	<i>Myrtus acris</i>
<i>Cuminum cyminum</i>	<i>Myrtus Cariophyllus</i>
	<i>Punica granatum</i>
	ROSACEAE.
	<i>Rosa centifolia</i>
	<i>Rosa gallica</i>
	<i>Rosa canina</i>

POMACEAE.

Mespilus Azarolus
Mesyplus germanica
Pyrus communis
Pyrus Malus
Pyrus Cydonia
Sorbus domestica

AMYGDALEAE.

Amygdalus communis
Amygdalus Persica
Armeniaca vulgaris
Prunus domestica
Prunus spinosa
Prunus Laurocerasus
Prunus Mahaleb
Prunus Cerasus

FRAGARIACEAE

Geum urbanum
Potentilla reptans
Potentilla Tormentilla
Fragaria vesca
Rubus fructicosus
Rubus Idaeus

SALICARIAE.

Lythrum Salicaria
Lawsonia inermis

TAMARISEINAEAE.

Tamarix gallica

LEGUMINOSAE.

Cassia fistula
Cassia absus
Cassia Senna
Cassia orientalis
Caesalpinia echinata
Moringa Zeylanica
Haematoxylon Campechian.
Hymenaea Courbaril
Myroxylon Peruferum
Pterocarpus Draco
Pterocarpus Santalinus
Ceratonia siliqua

Centaurea benedicta
Myroxylon Toluiferum

Copaifera officinalis

Tamarindus indica

Acacia vera

Acacia Catechu

Spartium juncatum

Cytisus Laburnum

Ononis arvensis

Trigonella foenum graecum

Melilotus officinalis

Lotus hirsutus

Psoralea bituminosa

Psoralea glandulosa

Psoralea pemptaphylla

Indigofera tinctoria

Liquiritia officinalis

Galega officinalis

Colutea arborea

Astragalus gummifer

Astragalus verus

Astragalus excapus

Cicer arietinum

Vicia sativa

Vicia Ervilia

Faba vulgaris

Ervum Lens

Pisum sativum

Lathyrus tuberosus

Arachis hypogaea

Phaseolus romanus

Dolichos Catiang.

Stizolobium pruriens

Lupinus albus

ANACARDIACEAE.

Rhus coriaria

Rhus Cotinus

Rhus Toxicodendron

Rhus Coppalimum

Amyris Elemifera

Amyris Opobalsamum

Amyris Kataf

ANACARDIACEAE—continued.	Cheiranthus Cheiri
Pistacia vera	Sisymbrium officinale
Pistacia Terebinthus	Erysimum Alliaria
Pistacia Lentiscus	Brassica Napus
RHAMNEÆ.	Brassica oleracea
Ilex vomitoria	Brassica Rapa
Rhamnus catharticus	Brassica Eruca
Rhamnus Frangula	Sinapis nigra
Zizyphus vulgaris	Sinapis alba

RANUNCULACEAE.	MAGNOLIAE.
Actea spicata	Drymis Winteri
Peonia officinalis	Liriodendron Tulipifera
Delphinium Staphysagria	Illicium anisatum

Delphinium Consolida	MENISPERMEÆ.
Delphinium montanum	Cocculus suberosus
Aconitum Napellus	Cocculus palmatus
Aconitum Anthora	Cyssampelos Pareira
Aconitum Lycocotonum	BERBERIDEÆ.
Aconitum Pyrenaicum	Berberis vulgaris

Aquilegia vulgaris & Cand.	PAPAVERACEAE.
Nigella damascena	Papaver somniferum
Nigella sativa	Papaver Rhoeas
Clematis Flammula	Chelidonium majus
Anemone pratensis	Glauceum luteum

Anemone Pulsatilla	VIOLARIEAE.
Ranunculus sceleratus	Viola Ipecacuanha
Eranthis hyemalis	Viola odorata
Helleborus niger	Viola tricolor
Helleborus foetidus	POLIGALEAE.
Helleborus viridis	Polygala vulgaris
Clematis Vitalba	Krameria triandra
CRUCIFERAE.	Krameria Ixina

Raphanus sativus	CARYOPHYLLEAE.
Raphanus Raphanistrum	Gypsofila Struthium
Isatis tinctoria	Saponaria officinalis
Anastatica hierochuntica	Dianthus Caryophyllus
Lepidium sativum	Cucubalus Behen
Lepidium latifolium	LINEAE.
Cochlearia officinalis	Linum catharticum
Cochlearia Armoracia	Linum usitatissimum
Nasturtium officinale	HYPERICINEAE.
Barbarea vulgaris	Hypericum perforatum, &c.

MALVACEAE.

Malva rotundifolia
 Malva sylvestris
 Althaea officinalis
 Althaea rosea
 Lavatera arborea
 Gossypium herbaceum
 Hibiscus Abclmoscus
 Hibiscus esculentus

STERCULIACEAE.

Theobromo Cacao

TILIACEAE.

Tilia europea
 T. Americana

THEACEAE.

Thea viridis
 Thea bohea

AURANTIACEAE.

Citrus Mcdica
 Citrus Aurantium
 Citrus vulgaris
 Citrus Limetta Bergamium
 Citrus Limonum

GUTTIFERAE.

Garcinia Gambogia

Cannella alba

Calophyllum inophyllum
 Stalagmitis Cambogiooides
 Wateria indica

ACERINEAE.

Acer Saccharinum

CASTANEACEAE.

Aesculus hippocastanum, &c.
 VITES.

Vitis vinifera

TROPAEOLEAE.

Tropaeolum majus

OXALIDEAE.

Oxalis Acetosella
 Oxalis cornicula

RUTACEAE.

Guaiacum officinale
 Bonplandia trifoliata
 Ruta graveolens
 Dictamnus albus

SIMARUBACEAE.

Quassia amara
 Simaruba officinalis

CORIAREAE.

Coriaria myrtifolia

TOXICOLOGY.

VEGETABLE POISONS ARE DIVIDED INTO FIVE CLASSES:

1. Irritative or acrid poisons.
2. Narcotic poisons.
3. Narcotico-acrid poisons.
4. Sedative poisons.

Amygdalineæ, by inducing death vehemently, without lesion or post mortem developments of extensive injury or inflammation of any kind—as by Hydrocyanic acid, Bay-rum, Cherry-Laurel water, oil of bitter Almonds, the cordial noyua, &c.

Anacardiaceæ, by a volatile principle which operates toxicologically when externally applied, as well as if internally introduced.

Apoeyneæ, } by the *Strychnia* and *Brueia* the plants of this *Strychneæ*, } tribe contain.

Asphodeleæ, by *Scillitina* and the volatile essential oil of some genera.

Chenopodeæ, by the essential oil of the leaves and seeds of some species of one genus.

Cinchonaceæ, by the *Emetina* contained in the roots.

Colchiaccæ, by the *Veratria* of the bulbs and seeds.

Compositæ, by the *Lactuearuim* of some genera.

Coniferae, by the volatile essential oil of some genera.

Convovulaceæ, by an acrid principle in one or two genera.

Coriariæ, by a deleterious principle, inducing toxic symptoms on animals.

Cucurbitaceæ, by the *Elatina* contained in the juice of the fruit of one genus, and the *Colocynthine* of the bitter extractive of the fruit of another genus—by an acrid deleterious principle in another genus.

Dipterocarpeæ, by the camphor.

Euphorbiaceæ, } by an acrid principle in the fixed oil, and
 Tithymaloideæ, } by the colo-resin of two—acting also when externally applied.

Fungi, by the *Amanatine* pervading the deleterious genera of the tribe,—inducing narcotism on man, and effects on animals like those of opium.

Gramineæ, by an unknown principle in the diseased state of the grain of some genera, and by a deleterious unknown principle in one.

Guttiferae, by the *Gamboge*, or a bitter yellowish or yellow principle pervading the whole tribe.

Leguminosæ, by the *Cytissina* of some of the genera.

Laurineæ, by the camphor.

Liliaeeæ, by an acrid principle in the bulbs.

Lobeliaceæ, by an unknown acrid principle in the roots and seeds of some genera.

Melanthaceæ, by the *Veratria* of the roots.

Menispermeæ, by the *Pierotoxine* of the berries of some genera.

Papaveraceæ, by *Morphia* and its modifications, and by *Narcotina* and its modifications, and a peculiar principle of an acrid nature of some genera.

Phytolacceæ, by an unknown principle.

Piperaceæ, by Piperina, probably in some peculiar state of combination with some other principle, in inordinate doses.

Podophylleæ, by an unknown principle of the leaves and roots.

Rosaceæ, } by the Hydrocyanic acid contained in many of
Ericeæ, } the plants of these families.

Rununculaceæ, by the Aconita, and similar principles of the plants of this family.

Thymeleæ, by an acrid principle in the bark and roots—acting also when externally applied.

Umbelliferæ, by Atropia, Solania, Daturia, Nicotina, Conia, and similar principles,—inducing Narcotism.

VEGETABLE POISONS.

A species of *Strychnos* according to Leschenault in Java, yields the upas tiute.

Antiaris toxicaria of Leschenault, yields the upas antiar of Java.

Woorara, is a poison which Indians in Guiana, put on the points of their arrows—an extract from various plants.

Ticunas, according to De la Condamine, is an extract from various plants in North America. Fontana's experiments showed it occasioned death externally applied, and internally given—this poison does not differ much from Woorara.

Hippomane Manchenella.

Chærophylum sylvestre.

Coriaria myrtifolia.

Sium latifolium.

Æthusa cynapium.

Amanita bulbosa,
Amanita verna, } fungi.
Amanita citrina,

Strychnos nux vomica.

S— St. Ignatia.

Brucea antidysenteria.

Jatropa curcas.

J— Manihot.

Croton tiglium.

Anacardium occidentale.

Rhus toxicodendron.

— vernix, &c. &c.

Chelidonium majus.
Clematitis
Anemone pulsatilla.
Sanguinaria canadensis.
Podophyllum peltatum.
Delphinium stavisagria.
D—— elatum.
D—— consolida, &c.
Nerium oleander.
Ruta graveolens.
Mercurialis perennis.
Solium temallatum.
Triticum } wheat and rye when diseased—as ergot.
Secale, }
Cicuta maculata.
Conium maculatum.
Cicuta virosa.
Digitalis purpurea.
Amygdalus persica. (The peach tree, leaves of it.)
Nicotiana tabacum, rustica, &c.
Datura stramonium.
D—— ferox.
D—— talula.
D—— arborea.
D—— metel.
Atropa belladonna.
Hyoscyamus niger.
Aconitum napellus.
Cimicifuga serperlaria.
Actaea spicata.
Taxus baccata.
Physalis alkengi, } and other species.
P—— somnifera, }
Ervum ervilia.
Paris quadrifolia.
Gelsemium nitidum of michaux, (yellow jessamine) ac-
cording to Beck 2. p. 426.
Solanum dulamara.
Amygdalus communis, (the bitter variety.)
Rhododendron chrysanthum, } and other species.
R—— maximum,
Kalmia latifolia, angustifolia, glauca, (the leaves and berries.

Prunus lauro-cerasus.
P. avium.
P. padus.
Oxalis acetocella, by its acid.
Tanacetum vulgare.
Symplocarpus foetida.
Phytolacca decandra, and other species, the berries root
 and old plant—the young shoots, or turiones are esculent.
Arum maculatum, }
A—dracontium, }
A—dracunculus, } and other species.
A—seguinum, }
A—trifolium, }
Solantheas quadrangularis.
S—forsklii.
S—glandulosus.
Pastinaca sativa.
Clematis vitalba.
 viorna.
 virginiana
Hydrocotyle vulgaris.
Asclepias gigantea,
Apocynum androœamisolum, }
A—cannabinum, } and other species.
A—hypericifolium, }
A—venetum, }
Lobelia inflata, } and probably all the species more or
L—syphilitica, } less.
L—cardinalis, }
Plumbago Europæum.
Pedicularis palustris.
Fritillaria imperialis.
Sedum acre.
Scilla maritima.
Narcissus pseudo—narcissus.
Rascunculus acris, }
R—sceleratus, }
R—bulbosus, } probably other species.
R—arvensis, }
Caltha palustris.
Colchicum autumnale.
Enanthe fistulosa.
E—crocata.
Aconitum napellus
A—anthora.

A———lycoctonum.

A———cammarum.

Anemone pulsatilla, }
Anemone pratensis, } probably the American species also.

Juniperis sabina.

Euphorbia officinarnm.

E———lathyris.

E———cytharissias.

E———tiraeulli.

Daphne mezereon.

D———gnidium.

D———laureola.

Holigarna longiflora, the berries in India yield a hard, black, resinous varish.

Schinus molle—Arueira; shrub, giving out resin when immersed in water.

Schinus arroeira—causes swelled legs in those who sleep under its shade—St. Hillaine.

Cassuvium occidentale—(Virey.)

Coronilla varia.

Mimosa—the root of a species of it, called spongia, in Brazil, a poison.

Lathyrus aphaea—(the seeds.)

Galego purpurea—(Tephrosia) leaves and berries used for poisoning fish.

Baptisia tinctoria.

Doliehos prurieus.

Ricinus communis.

Stalagmitis gambogoides.

Cueumis colocynth.

Cucumis agrestis.

Momordica elaterium.

Bryonia dioica.

Helleborus fœtidus.

H———niger.

Veratrum viride.

V———album.

V———sabadilla.

Caltha palustris.

Piper methysticum, Ava or Otaheite, Java root.

Piper cubeba, Piper betel, Piper siriboa, Piper inebrious.

Spigelia marilandica.

Cuscuta Americana.

C—**Europæa.**

Sambucus nigra.

Anacardium occidentale.

Scmccarpus anacardium, (Shylet marking-nut.)

Melanerhca usitatissima, (Varnish of Martaban.)

Stagmaria verdiciflua, (black hard varnish of Indian archipelago.)

D—**Mezereon.**

Narcissus pseudo-narcissus, daffodil.

Savin.

Jalap in large doses, more poisonous than scammony.

Black pepper in large quantities.

P. culcba, }
poisonous occasionally.

P. nigrum, }
poisonous occasionally.

P. longum, }

P. betel, }
the betel of the Malays

P. Siriboa, }

P. inebrious, South Sea islanders prepare an intoxicating beverage from it.

Cestrum physalis, alkekengi.

Coriaria myrtifolia, the leaves are said occasionally to be imported in parcels of scenna.

Sccale cornutum, spured maize, lolium temulentum, darnel.

ANACARDIACEÆ—Cashew-nut tribe.

Tropical America, Africa and India, chiefly: a few North and South of tropics—others inhabit Europe and North America, Northern India, and cape of good hope, Duvana and Schinus, exclusively in Chile.

Mangofera, Mango pint.

Semccarpus anacardium—varnish of Sylhet.

Melanorhoa usitatissima—martabon varnish.

Anacardium occidentale, omnem.

Stagmaria verniciflua—Indian archipelago, cashew nnt and black varnish.

Holigarna longiflora—a varnish from the berries.

Schinus Molle, full of resin like mastic, used by peruvians for the gums.

S. Arrocina.

Rhus coriaria, } used by tanners in the United States in
Rhus typhium, } making morocco.

R. Vernix,

R. Glabrun.

R. Toxicodendron.

R. Cotinus, variety of radicans.

Cassuvium occidentale, this cashew nut, Virey says affects the brain singularly.

Pistachia atlantica, } mastic.
P——— lenticus, }

P. Terebinthus, Scio terpentine.

P. Lentiscus, pistach fruits.

Comocladia, several species stain the skin black.

AMENTACEÆ.—Same as Saliciaceæ, which see
APOCYNEÆ.

Natives of same places as Asclepiadeæ—purgative, acrid and febrifuge qualities.

Cerbera manghas, purgative.

Echites antidyserterica, astringent.

Nerium oleander, gallic acid and febrifuge.

Urceola elastica, } caoutchouc.
and the Vahea of Madagascar, }

Nerium odoratum, bark of root in India, repellent externally, internally a poison.

Tabernamontana utilis of Arnott, yields a copious stream of thick rich milky fluid, without acrimony, (Jamesons Journal, April 1830.) Christison analysed the milk and found in it

Caoutchuc, and a peculiar resin.

Yocanga in Madagascar, bird lime.

Cream fruit, Sierra Leonc of this family.

Urceola prodices, the caoutchuc of Samatra.

Plumeira obtusa, cathartic in Java.

Wrightia antidyserterica, conessi bark of British mat. med.

Palapatta of Hindoos of Malabar, tonic febrifuge.

Wrightia tinctoria, used by dyers, indigo colour.

Periploca indica, sarsaparilla of India.

Allamanda cathartica, a purgative.

Cynanchum arguel, senna of Egypt.

Cerbera tanghin, powerful poison in Madagascar, one seed will kill 20 persons. (Tanghin tree.)

Strychnos nux vomica.

S. Colubrina, anthelmintic and febrifuge of Java.

S. St. Ignasii, papaecta of India, mixed with cocos Maldivia. (Jehirec or Durreoaye Narriol) used in cholera, poisonous in over dose.

S. *pseudo-quinina* of Brazil, powerful febrifuge, contains no Strychnine according to Vauquelin, the pulps of the fruit of this and *nux vomica*, are eaten with impunity.

Calliard found a species of *Strychnos* in Nubia with a sweet and not unwholesome fruit.

Apocynum androsaemifolium.

A. Cannabinum.

A. Hypericifolium, in the United States, contain emetina.

ASCLEPIADEÆ, the milk weed tribe.

Tropical India, and New Holland.

Equinoctial America.

Cynanchum tomentosum, }
Periploca emetica, } emetics.

Asclepias decumbens, }
A———tuberosa, } sudorific and carminative.

Periploca esculenta, }
Asclepias aphylla, } edible.
A———stipitacea, }

Gymnema lactiferum, cow plant of Ceylon, or Kiriaghuna plant, yields a milk used by the Cingalees for food.

Asclepias volubilis.

A———vincetoxicum, produce sickness and expectoration.

Diploplesia vomitoria, acts in India like *Ipecacae*.

Asclepias currassavica, used in gleet, bloody flux, and flour albus.

Calotropis gigantea, Akund, Yercum, or Mudar plant of India, alterative and purgative in leprosy, elephantiasis, and worms, (Anislie.)

Cynanchum oleasolium, one of the plants yielding Alexandria Senna.

ARISTOLOCHIÆ.—The birth root tribe yields a stimulant principle.

The plants of this family are herbaceous, with alternate simple petiolate leaves, apetalous flowers, calix tubular and valvate—grows in Europe, North America, and India.

N. America, rare.

Europe and Siberia, rare.

India, sparingly.

Mediterranean, sparingly.

Aristolochia bracteata, anthelmintic of India, in leaves.

A longa,
A rotunda, } roots.
A clematitis,
A serpentaria,
A tomentosa, } Virginia snake root.
A hastata,

A indica, bitter, India.

A odoratissima, of India, very bitter.

A fragrantissima, Star Reed, called in Peru *Byrica de la estrella*. The root antidyseenteric, and in malignant fever.

6. *Aristolochia Indica*.

7. *Aristolochia sempervirens*.

8. *Aristolochia hirsuta* of Muhlenburg, (synonymous with *A tomentosa* of Nutt.)

9. *Aristolochia sagittata* of Muhlenburg, (synonymous with *A hastata* of Nutt.)

The leaves and roots of 4 are used, besides a volatile oil. The plant contains an acrid fixed oil, and a peculiar principle denominated *Cytissine*, a dark yellow substance, resembling an extract, with a bitter, nauseous taste, and attracting humidity when exposed to the air; very soluble in water and weak alcohol—almost insoluble in strong alcohol and ether; is neither acid nor alkaline;—is not precipitated by any of the following; acetate of lead, nitrate of silver, and of mercury, the sulphates of copper and of iron, the hydrochlorates of baryta, lime, and tin. Acts violently on the system; induces vomiting, purging, and intestinal inflammation. M. Chevalier discovered this principle in the seeds of *Laburnum*. (*Cytissus Laburnum*,) hence its name *Cytissina*. He was nearly poisoned by taking eight grains of it.

The roots of *Asarabacca* were analysed by M. J. L. Lassaigne and M. Fenuelle. They found in it,

1. A concrete, volatile oil, identical with, or closely allied to camphor.

2. a very acrid, fixed oil.

3. *Cytissine*.

4. *Fecula*.

5. *Gum*.

6. *Ulmin*.

7. Citric acrid, besides citrate of lime and matate of lime.

8. An acetate.

9. A salt with an ammoniacal base and some mineral salts. Several of these substances are not found in the leaves

The French writers attribute the errhine properties of this plant to Cytissine. It is likely owing to the acrid fixed oil; most active in the fresh state.

According to Thiebaud, M. Berneaud, and M. Tenore, recognise the Baccharis of Virgil, which was formerly used in making crowns, to be this Asarum. It grows abundantly in the mountainous districts of Italy.

Consult Barton's Cullen's Mat. Med. for the errhine properties.

The American species, No. 1, is worth an inaugural dissertation.

2, 3, 4, and 5 are seldom used in the United States.

6, is used in the East Indies.

7, according to Forskhal, is used by the Arabians as a counter poison.

8 and 9, are mixed with Virginia Snake Root.

Chevallier found in the roots of No. 1 a volatile oil.

2, a yellow, bitter principle, soluble in water and aleohol.

3, resin.

4, gum.

5, starch.

6, albumen.

7, lignin and various salts.

Bucholts obtained from 1,000 parts,

5 of a green, volatile oil.

28.5 of a yellowish green resin.

17 of extractive matter.

181 of gum in extract.

624 of lignin, and

144.5 of water.

Toxicological aspect of the family as known in the Materia Medica.

As a group, not poisonous. The Virginia Snake Root is stimulant, but does not show any untoward effect on the system judiciously used. It is an important medicine.

Cytissina in Asarabaeca, may be said to be capable of poisoning. Children are frequently injured by eating the seeds of Laburnum.

AMYGDALEÆ.—The Almond tribe.

Cold or temperate climes of the northern hemisphere, one species *Cerasus occidentalis*, native of W. Indies—one in Mexico, one in Cochin China.

Yields Hydrocyanic acid, in leaves and kernels, and Cerasin. *Cerasus Virginiana*, U. States.

C. capollim, Mexico, febrifuge astringent, the bark of the root, antidiarrhetic.

C. capricida, kills the goats of Nipal.

C. caroliniana, the leaves destroy cattle which feed on them.

Prunes, (plumb and apricot.)

Cerasus, (cherry.)

Anygdalus, (peach.)

Prunus spinosa, sloe.

Cerasus avium, wild or bird cherry, the leaves a substitute for tea.

Prunus domestica, prunes.

P. brigantiaca, yields a fixed oil, called huille des marmottes, used instead of olive or almond oil.

P. spinosa, a febrifuge bark in Calabria, (M. Tenore.)

Kirschencwasser, a dangerous liqueur, prepared in the vales and black forest, is from a variety of *prunus avium*.

Peach flowers, laxative to children—Noyau, a liqueur, is flavoured by the kernel of *Cerasus occidentalis*.

ARTOCARPEÆ.—The bread-fruit tribe.

The tropics, particularly of the Indies, the mulberry and *Maclaura* in Canada, and the United States, the fig in Persia.

Dorstenias are herbaceous Brazilian weeds.

Morus tinctoria, fustic.

M. rubra.

M. alba—contains in its bark, myroxylic acid with lime.

M. papyrifera.

The cow-tree of South America is here.

Maclura aurantiaca, osage apple—dies yellow, like fustic; used for making bows by North American Indians.

Ficus Religiosa, Banayan tree, the seeds cooling, and alternative in India.

F. septica, the leaves esteemed by the Cochin Chinese, caustic, and anthelmintic.

Ficus racemosa, astringent.

F. Indica, its white juice cures tooth ache; gum lac is obtained from it abundantly.

AURANTIACEÆ.—The Orange tribe.

Well known in the tropics, and a wild orange in Brazil.

Cookia punctata, Wampee, of China and the Indian Ar. chipelago, a fruit much esteemed.

Glycosmis citrifolia, the berries delicious—also those of *Triphasia trifoliata*. Oranges very prolific, a single tree of St. Michael's orange produced 20,000 oranges fit for packing, exclusive of the waste and damaged fruit, one-third more.

Feronia elephantun, yields a gum like G. Arabic—the young leaves bruised smell like anise.

AMYRIDEÆ.—The Balm of Gilead tribe.

Tropics of India and America, and one species in Florida.

Fragrant resinous shrubs.

Amyris, hexandra (D. Hamilton,) yields gum eleme.

Virey says the Niouttout of Adanson, yields gum resin, called Bdellium.—See Umbellifeæ.

Nubian Mahomedans were found by M. Cailliaud, to have used the layers of the bark, (liber,) of a species of *Amyris* to write their legends on.

Amyris toxifera, poisonous.

A. ambrosiaca, produces the resin of *Coumia*.

BIGNONIACEÆ.—The Trumpet Flower Tribe.

The tropics of either hemisphere, and from Pennsylvania, to Chile, in North and South America.

Chica is a red feculent substance, obtained by boiling the leaves of *Bignonia Chica* in water—the Chica is precipitated, by adding some chips of an unknown bark, called Aryana—used by the Indians to paint themselves red—approaches the nature of a resin, but has peculiar properties; dies cotton orange red. Several species of *Bignonia*, form large trees in Brazil, of hard wood, fit for ship timber—one, the *Ipeuma*, is the hardest wood of Brazil. The *Ipetobacco*, furnishes the best ship timber.

B. Catalpa—the Catalpa tree of the United States.

- B. *Cruciata*.
- B. *radicans*.

BORAGINEÆ.—The Borage Tribe.

Temperate countries of Northern hemispheres—a few in the United States.

- Anchusa tinctoria* alkanet root—deep purple dye.
- Lithospermum tinctorium*,
- Onosma achinoides*, } the roots used by dyers—red-
- Echium rubrum*,
- Anchusa virginica*,
- Borago officinalis*.

BERBERIDEÆ.—The Berberry Tribe.

Chiefly the mountainous places of the temperate parts of Northern hemispheres—South America, as far as the straits of Magellan.

Berberis vulgaris yields sugar and an acid—the acid is oxalic. Root yields a yellow dye—the bark used by dyers on account of its astringency.

CALYCANTHEÆ.—Carolina Allspice Tribe.

North America and Japan.

Calycanthus floridus.

CHENOPODEÆ.—The Goose-foot Tribe.

Weeds in waste places throughout the world—most common in ultra tropical regions.

- Atripex hortensis*, (its seed produce vomiting,) }
garden orach.
- Spinacia spinach*.
- Beta vulgaris*, beet. } Esculent.
- Mangel Wurtzel*.
- Chenopodium spinosa*.
- C. album*, in Pennsylvania.

Salsola, all of them, } Yielding immense quantities of
Salicornias, all of them, } soda.

Chenopodium anthelminticum, essential oil.

C. Botrys, } also an essential oil.
C. Ambrosyoides,

C. Vulvaria. M. Chevallier remarked that this species exhales pure ammonia during its whole existence; this is the only observation existing of a gaseous exhalation of azote by vegetables, though numerous proofs are extant of the exhalation of oxygen.

CARYOPHYLLEÆ.—The Chickweed Tribe.

Temperate and frigid parts of the world—in hedges, rocks, mountainous and waste places. In the tropics they are on high elevation, near eternal snow. Generally insipid qualities.

Saponaria officinalis,
 Gypsophila ostruthium, } have saponaceous properties; the
 Lychnis dioica, } first has been used in medicine.
 L. calcedonica,
 Dianthus caryophyllata.

CONIFERÆ.—The Fir Tribe.

Various parts of the world, from the eternal snows of arctic America, to the hottest regions of Indian Archipelago—of universal importance to man in innumerable ways.

1. PINUS ABIES, (*Abies rubra*.) Yellow-leaved Fir—Norway Spruce Fir. Yields common Frankincense, by spontaneous exudation and incision—tops used to make spruce-beer.

2. PINUS BALSAMUM. Balm of Gilead Fir. Yields Canada Balsam; highly fragrant.

3. PINUS LARIX. Larch. Exudes Orenburgh Gum, and Briançon Manna—also, by boring, common Venice Turpentine.

4. PINUS SYLVESTRIS. The wild Pine, or Scotch Fir. Yields common Turpentine; inner bark esculent, raw or baked into cakes; tar distilled from it; lampblack obtained by burning it.

5. PINUS CEMBRA. Yields the fine-scented Briançon Turpentine—its shoots, by distillation, the genuine Riga Balsam.

6. PINUS PICEA. Yields Strasburg Turpentine, by puncturing the small vesicles of bark which contain it—and common Turpentine, by larger incisions.

7. PINUS CANADENSIS. Hemlock Spruce. Yields Hemlock Turpentine, called Hemlock Gum.

8. PINUS PALUSTRIS, and some other species producing the *Terebinthina empyreumatica*, or impure turpentine, procured by burning, called *Pix liquida*, or common Tar.

The whole of the extensive natural family *Coniferæ*, yields turpentines of different qualities and effects; some being purely balsamic, while others are stimulating, and highly rubifacient. The true *Terebinthus* of the ancients, is not obtained

from the genus *Pinus* or *Abies*, but from the *Pistachia Terebinthinus*; its concrete is called Chio or Cypress Turpentine. All the terebinthinate products, however, called *Terebinthina*, by the colleges, are characterized by a certain similitude of generic quality, if I may speak thus; but as we use for medical purposes, certain preparations of them, I shall here briefly enumerate them, referring you to the cabinet specimens, for better information, on the peculiarities of each, than description can give; and to the details of the lectures, for an exposition of the peculiar medical virtues, effects, and uses, of the whole.

1. *Terebinthina Canadensis*. From species No. 2; called Canada Balsam; *Resina liquida*. Canada Turpentine.

2. *Terebinthina Chia*. Cypress Turpentine, from *Pistachia*, which see.

3. *Terebinthina vulgaris*. Common Turpentine; Horse Turpentine—from species No. 4.

4. *Terebinthina Veneta*. Venice Turpentine—from species No. 3.

5. *Terebinthina Argentoratensis*. Strasburg Turpentine—from species No. 6.

6. *Hemlock Turpentine*. A dark, terebinthinate exudation, from the tree which produces hemlock scantling; and which is extensively used, in the United States, instead of Burgundy pitch, as a rubifient. One cabinet specimen, is from Silver Lake, where a good deal of it is collected, as well as in the Eastern States.

7. *Pix abietis*. The *resina preparata*, of species No. 1,—called Burgundy pitch.

TEREBINTHINÆ OLEUM. Oil of Turpentine—(called Spirit of Turpentine.)

Hungarian Balsam is obtained from *Pinus Pumilio*.

Bordeaux Turpentine, from *Pinus Pinaster*.

Carpathian Balsam, from *Pinus Pinea*.

Strasburg Turpentine, from *Pinus Pectinata*, (P. *Picea*.—*Lin.*)

Liquid Storax, is thought to be yielded by Dammar Pine, and a substance called in India Dammar, or country resin, is procured from the same plant, or from a tree called by Dr. Buchanan *Chloroxylon Dupada*.—(*Ainslie*, I. 337.)

Sandarach, is said by Dr. Thompson, to exude from the

Juniperus Communis. This is, I think, doubtful. I am inclined to think that Brongniart and Schousboe are correct in referring it to the *Thuja auriculata*, (or *Vuadrivavvis*,) of which tree it is said by them to be the tears.

The Larch yields tannin powers.

Juniperis Sabina, Savin, stimulating, diuretic—as also the berries of *Juniperus Commuuis*, Juniper berries, an ingredient in flavouring gin.

The large seeds of many of the *Coniferæ* are esculent; the Stone pine of Europe, the *Pinus Cembra*, the *Ginkgo*, the *Pinus Lambertiana* and *Gerardiana*, the *Araucaria Dombeyi*, and *Podocarpus Nereifolia*, are all edible, when fresh. The succulent envelope of the fruit of the *Taxus baccata*, or Yew tree, is foetid, and according to Decandole is poisonous. The seeds, if eaten, are manifestly deleterious.

CRUCIFERÆ.—The Cruciferous tribe.

General throughout the world, but chiefly a European family.

Antiscorbutic, contains ammonia and stimulant properties, combined with an acrid flavor. Universally and uniformly the same, varying only in intensity of flavor and extent of power.

The family contains a great deal of azote—hence their putrid animal odour in rotting.

Sinapia nigra.

S.—— alba.

S.—— chinensis—seeds in India and China, stimulant and stomachic laxative.

Arabis chinensis, (Rottler) the same.

Rape seed—horse-radish—common.

Radish—salmon radish.

Cabbage—kale.

Cauliflower.

Water cresses—pepper grass, are all found here.

Sisymbrium amphibium.

Sisymbrium aquaticum.

Arabis byrata, &c. &c.

Erysimum Barbearea, hedge mustard.

Turritis, different species, &c. &c.

CUCURBITACEÆ.—The Gourd tribe.

Native of the hot countries of both hemispheres, chiefly within the tropics—a few in Europe and North America and

Cape of Good Hope—India their favourite location. A bitter laxative property, in the whole tribe more or less concentrated or diffused—in the larger cultivated fruits the pulp is saccharine and deliciously cooling, and diruretic, as in the melon, the cucumber, and the choco.

The colocynth goard is poisonous by reason of its colocynthin—yet Thunberg says the goard is so prcpared at the Cape of Good Hopc, as to bc a mild and esculent pickle.

Benincassa cerifera—secretes during its ripcning, on the surface of its fruit, a waxy substance.

Feuillea cordifolia—the leaf of it, according to M. Drapiez, is an antidote to vgeatble poisons.

Trichosanthes palmata, of India—the fruit pounded and mixed with warm coco-nut oil, is used for cleaning and healing ill-conditioned sores in the ears, also introduced up the nostrils in ozœna.

Bryonia alba, is drasatic purgative.

Momordica elaterium, yields elatina—six grains from forty fruit—(Clutterbuck.)

Bryonia cordifolia, is cooling and expectorant—Ainslie, 2. 21.

B——— rostrata—the root is uscd in India as an elec-tuary for piles.

B——— epigæa—root very bitter approacing in quality the columbo root, which it was formerly supposed to yield.

B——— scabra—the tender shoots and leaves roasted are aperient.—Ainslie, 2. 212.

Jollifia africana—seeds as large as a chestnut, said to be as good as almonds.

The seeds of the wholc family, like those of the Leguminosæ do not partake of the properties of the pulp which surrounds them. Those of this family under consideration arc oily and yield an abundance on pressure—said to be equal to oil of olives.

CINCHONACEÆ.—The Cinchona tribe.

There are several sub-orders in this family, within the tropics almost exclusively where they arc conjectured to form about one-twenty-ninth of the whole number of flowering plants. One is in Georgia, and one as far north as Canada.—Emetic and febrifuge. Dependent on the bitter tonic astrin-gent principles residing principally in the barks chichonia

and quinia, exist in the cinchonas; combined with kinic acid. Dr. Serturer obtained another vege-to-alkaloid from the Peruvian barks which he called Chiniodia. M. M. Henry, and Debondre, deny its existncc, (Brand's Jour, N. S. July, 1830, p. 422.)

Cinchona ferruginca, { grow in Brazil, where they are
C. ——— vellozii, } used as Peruviau barks, but are
C. ——— Remigiana, } inferior.

Portlandia hexandra, *Coutarea speciosa* (of Aublet,) of French guiana, resembles in propcrties the cinchonas of Peru.

Exostemma floribunda, yields the quinquina piton and the *Q——— des Antilles*, is remarkable for possessing similar properties to those of the true quinquina (loxa bark,) while not a trace of either cinchonine, or quinine is found in it. Lindley. On this account Vahl's name of *Cinchona floribuda* or *montana* which I adopted for this bark in preference to *Exostemma*, in No. 19 of my Outlines, vol. II. p. 97, I would now abandon, and reinstate that of the genus above, which in the Outlines is placed as a synonym. Is this the bark called St. Domingo bark, in commerce?

Rondelitia fcbrisuga is a febrifuge bark obtained from Sierra Leone.

Pinckneya pubens, is Georgia bark.

Morinda Royoc, *Guettarda coccinea*, *G. ——— Antirhea*, *Macrocnemm corymbosum*, are febrifuge.

Nauclea gamber, light brown and very astringent extract (sometimes substituted for kino,) is obtained at Malcca by boiling the leaves.

Uebera tetranda, is used in India (decoction of leaves) as an antetnuotic antidysenteric. Ainslie.

Cephacles, *emetica*, *Cephaelis ipecacuanha*, *Calicoceca ipecacuanha*, from the damp, shady forests of Brazil, contains cmetiva.

Richardsonia rosca, *R. ——— scalva*, *Spermacoce ferruginca*, *L. ——— Poaya*, of Brazil, emetic.

Allied to specacunha, is said to be the *raiz preta*, celebrated for curing dropsies, and venomous bites of serpents.

Psychotria emetica, *P. ——— herbacea*, substitutes for ipecacuanha.

P. ——— noxa ———, *P. alicourea*, *Margraavii*, called both *erva de rata*, are poisonous in Brazil.

Gardenia dumetorum, the powdercd fruit is an emetic, an

infusion of the bark of the root is used in bowel affections as a nauscative. Ainslie. Roxburg says, the root bruised and thrown into ponds intoxicates fish, like *cocculus indicus*.

Oldenlandia Umbellata.—The leaves expectorant in India.

Coffea arabica, yields caffein, according to Turner, by its well known seeds, caffein is a peculiar chemical principle. Lindley remarks, that as the part of coffee which is roasted, is the albumen, or hard horny part of the seed—that probably all of the *cinchonaceæ* or *stellatæ*, which have similar horny seeds, would serve as substitutes for coffee.

The fruit of some species of *Gardenia Genipa*, and of *Vanguiera* (the *Voavanga* of Madagascar) are succulent and eatable. Lindley.

Cephalanthus occidentalis of the U. States is here, worth an inaugural dissertation.

There are 12 sub orders in this family.

1. *Anthrospermæ*.
2. *Spermacocæ*.
3. *Psychotricæ*.
4. *Cephaelidæ*.
5. *Coccocypselæ*.
6. *Cephaelanthæ*.
7. *Hedyotidæ*.
8. *Manettiæ*.
9. *Cinchanaæ*.
10. *Guettardæ*.
11. *Hametiacæ*.
12. *Gardeniacæ*.

For a very full account of the *Cinchonas*, and different barks of commerce, of their character, and for a full account also of *Ipecacuana*, I refer you to my Outlines, in vol. 2, p. 94 to 106, and 188 to 194.

CUPULIFERÆ—The oak or acorn tribe.

Almost every were, only rare in Barbary, and Chili, and the northern parts of South America; none at Cape of Good Hope. The species which are found within the tropics, are chiefly Oaks. They are always in the high lands and never in the equatorial vallies.

Gallic acid and tannin in the oak.

Quercus Suber, the Cork-tree, the bark contains, accord-

ing to Turner, (700) a peculiar principle, which he has called Suberin, and an acid called suberic.

Quercus Ægilops, its acorns are imported from the Levant for dyers, under the name of Velonia

Quercus infectoria, (Olivier,) }
Quercus cerris, } produce galls.

All species of Oak powerfully astringent; may be used externally, too harsh for internal exhibitions. The U. States are rich in the Oaks, and embroidery of sprigs of *Quercus Virens*, or Live Oak is the naval uniform.

Fagus the Beech-tree.

Corylus avellana, the Hazelnut-tree, are here.

COMPOSITÆ.—The compound flower tribe.

There are 3 sub orders in this family.

1. *Corymbiferæ*.
2. *Cinarocephalæ*.
3. *Cichoracæ*.

Every where in the world.

1st. of the *Corymbiferæ*.

The bitterness of the Compositæ has a particular character in this sub order, by its union with a resinous principle, and according to Decandolle, (*Essai sur les Proprietes*, p. 177,) the following have little of this resinous matter mixed with mucilage of a bitter and astringent character; hence they are tonic stomachic and febrifugal.

1. *Tussilago Farfara*.
2. *Anthemis nobilis*.
3. *Inula Helenni*.
4. *Solidago*, different species.
5. *Eupatorium perfoliatum* and other species.

The French prepare the *Vin d'Aulnèe* from the root of 3, which is heavily aromatic, perhaps slightly fetid as has been observed.

In proportion as the resinous principle is augmented the stimulating property is increased, as in the reputed antihelminitics.

- Tanacetum Vulgare*.
- Artemesia Abrotanum*.
- Artemesia Santonica*.
- Artemesia Absinthium*.
- Artemesia Maritimum*.

Artemesia Vulgaris, &c. &c.

Veronica Anthelminticus, of India, and *Santolina*, and in the reputed emmenagogues.

Matricaria

Achillea Millefolium

And some species of *Artemesia*.

Moxa is the product of *Artemesia Chinensis*, } both of China.
Artemesia Lanuginosa, }

Artemesia Maderaspatana used in India. Stomachic—externally as anticeptic anodyne, Ainslie.

Artemesia Indica, antispasmodic, there.

Calendula officinalis, sudorific, also many species of *Eupatorium* and *Erigeron*, as

Erigeron Philadelphicum.

Erigeron Heterophyllum.

Erigeron Canadense.

Erigeron Pulchellum.

Erigeron Bellidifolium.

Liatris, several species are diuretic.

Elephantopus scaber—in decoction of the leaves and roots is given on the Malabar coast in dysuria, of course diuretic.

Cacalia Suaveolens, } U. States, properties unknown.
Cacalia Atriplicifolia, }

Cacalia Sonchifolia, according to Ainslie, is antifebrile,

Cacalia Alpina and } are expectorant.

Cacalia Sarracenia, }

The genus *conyza* of which we have species in the United States, will probably be found diuretic, like the *conyza*, esteemed so in Mendoza.

Anthemis pyrethrum is a sialogogue, the root.

Segisbeckia orientalis, is said to be so also.

Anthemis cotula is the stinking may-weed, or wild chamomile, is emetic.

Mikania guaco produces in South America, the *Vijuco del guaco*, esteemed as curative of the bites of serpents.

Mikania scandens, of the U. States, has not been tried medicinally.

Eupatorium ayapana, makes a diet drink by the leaves.

D. Hancock, in the Quarterly Journal, July 1831, p. 334, denies the curative power of *mikania*, and says the true *guaco* antidote is a species of *aristolochia*.

Artemesia dracunculus, tarragon is used from its agreeable flavour in French and Spanish cookery.

Alchillea nana, as well as several alpine dwarfs of the genus artemesia, yield in the Alps a vinegar, resembling in flavour the taragon.

Helianthus annuus, yields a fine oil from the seeds. John says its pith is a peculiar principle, and he calls it Medlin.

H. tuberosus is Jerusalem artichoke, is esculent while the roots of all the beatiful dahlias are disagreeable. M. Payen says that berzoic acid exists in the dahlias, (Brewster, 1. 376.)

Elecampane, yields Iunlin.

SECOND SUB-ORDER, Cinarocephaleæ, intense bitterness, owing to a mixture of extractive with a gum which is sometimes abundant, as in *carduus benedictus*, c. —— *marianus*, *centaurea calcitrapa*, c. —— *americana*, *arctium barbana*, *cynara scolymus*, esculent and aperient.

The gum of the root of this *cynara*, the Arabians use as an emetic, calling it kirnkuzeed.

Echinops strigosus, the flowers in Spain are used for tinder.

The corollas of the artichoke, the cardoon, and several thistles, have the power of curdling milk, and in the south of Europe, are used for this purpose.

Carthamus tinctorius, is the bastard saffron.

THIRD SUB-ORDER, Cichoraceæ, there are the endive, the succory, and the lettuce, as principle.

Cichorium intybus, yields the succory coffee.

C. endivia, the common winter sallad, or edivia.

Lactuca sativa, the lettuce.

L. virosa, the narcotic lettuce.

The scorzonera, and the *tragopagon porrifolium*, or salsafy, are esculent vegetables.

The bitter narcotic secretion of most of the plants of this sub-order will be found in *sonchus floridanus*, *lactuca elongata*, and others of this country.

CONVOLVULACEÆ.

THE BIND-WEED TRIBE.

Abundant in the Tropics--scarce in cold climates. They twine around other plants, or creep among weeds on the sea-shore.

A STIMULANT CATHARTIC PRINCIPLE.

1. *Convolvulus Scammonia*, the concrete juice.
2. *C. Jalappa*, the root.
3. *C. panduratus*, the root, not so active as Jalap, acts like Rhubarb.
4. *C. Turpethum*, the root, harsher than Jalap.
5. *C. Cneorum*, }
Cneorum album, } do. purgative.
6. *C. minimus*, }
c. Cantabriga, } herb, vermifuge.
7. *C. Mechoacanus*, } root, not so active nor so fa-
Mechoacana alba, } tiguing as Jalap.
8. *C. soldanella*, } root, hydragogue cathartic.
Brasica marina, }
10. *C. floridus*, root, errhine.
11. *C. sepium*, } juice, purgative.
12. *C. arvensis*, }
13. *C. Brasiliensis*, root, in decoction, purgative; yields a kind of scammony.
14. *C. scoparius*, the wood yields oil of Rhodium, errhine.
15. *C. Papirin*, root, drastic cathartic.
16. *C. tuberosus*, root, cathartic.
17. *C. macrorhizos*, }
18. *C. macrocarpus*, } roots, purgative.
19. *C. maritimus*, }

Ipomea Quamoclit, the root errhine.

Convolvulus Batatas, } the roots of both are esculent.
C. edulis, }

Cuscuta Americana, } active, perhaps purgative.
C. Europea, }

Mr. Hume, chemist in Long Acre, obtained by an operose process, a substance from Jalap which he considers the active principle of that root, and called it Jalapine. Five grains are obtained from one ounce of the root; it has neither taste nor odour; insoluble in ether, and scarcely in either cold or hot water. Pelletier experimented with the sulphate of Jalapine, sent to him by Mr. Hume, the result of which renders it doubtful whether Jalapine be the active principle of Jalap root. No therapeutical trials have yet been made with it.

CAPRIFOLIACEÆ.

THE HONEY SUCKLE TRIBE.

There are four sub-orders of this family.

1. *Lonicerae*; the honey-suckle group, all *Loniceras*, &c.
2. *Sambucineæ*; the elder group; all *Sambuci* and *Viburnums*.
3. *Hederaceæ*; the ivy group; *Hedera* and *Cornus*, &c.
4. *Hydrangeæ*; the *Hydrangia* group; *Hydrangia*, and *Adamia*, &c.

Northern parts of Europe, Asia, and America, passing down within the limits of the tropics. Few in Africa; scarce in the southern hemisphere. All fragrant. Bark mostly astringent. Several possess other medicinal properties.

Cornus Florida, yields *Cornia*, tonic.

C. sericea, }
C. circinata, } tonic.
C. mascula, }

Sambucus nigra, }
S. Canadensis, } The flowers fragrant and sudorific; the leaves fetid, and emetic and drastic purgative. Of the *Lonicera* or honey suckle, the same may be said; and also of the fruit of Ivy.

Viburnum tinus, } The fruit astringent but loses it after
V. acerifolium, } fermentation.
Hedera helix. [Hedera is placed by Decandolle in the
 Araliaceæ.]
Triosteum perfoliatum; root a mild cathartic.

DIPTEROCARPEÆ.

THE CAMPHOR TREE TRIBE.

Only in the Eastern Islands of the Indian Archipelago—
 largest of the Forest trees there.

Dryabalanops Camphora—the Camphor tree of Sumatra—
 the substance is found in the heart of the tree in a concrete
 state—less volatile than common Camphor of Commerce.

Shorea robusta yields a balsamic resin used in the temples
 of India.

Vateria Indica—the Piney tree; the fruit is boiled to obtain a
 tallow which rises to the top of the water and cakes when
 cool—whitish—greasy to the feel—not disagreeable odour—
 tenacious and solid, melting at the temperature of $97\frac{1}{2}$ ° of
 farenheit (Brewster 4, 186.)

For Camphor see also family Laurineæ.

DIOSMEÆ.

THE BUCKU TRIBE.

South of Europe—Cape of Good Hope—New Holland
 Equinoctial regions of America.

Bucku plants of the Cape have a powerful and fetid odour
 —antispasmodic, febrifuge in Cuspare bark, and Evodia, and
 Ticorea barks of Brazil.

Dictamus Fraxinella so full of a volatile oil that the sur-
 rounding atmosphere in hot weather is inflammable.

Evodia Febrifuga—a Quina of Brazil.

Casca de larangueira da terra of Brazil miners, contains *Cinchonia*, (Dr. Gomez,) probably an *Evodia*?

Ticorea jasminiflora—used for *Frambesia*.

Ticorea febrifuga—in intermittents.

Hortia Brasiliana, similar properties—but weaker.

Bonplandia trifoliata
Cusparia febrifuga

} is *Cusparia Bark* or *Augostura*, or
Augustura Bark, or *Quina de la*
Guayana—used by the *Catalan*
capuchin Friars of the missions on
the river *Carony* in South Am.
(Humboldt.)

EUPHORBIACEÆ.

THE SPURGE TRIBE.

1500 species in this family; 3ths of which in equinoctial America—sometimes large trees—sometimes shrubs—often diminutive weeds—sometimes succulent aphyllous plants looking like the cacti or Indian fig plants—or prickly pear plants.

50 species are in North America—a small number of which in Canada, $\frac{1}{2}$ found in tropical Africa including the islands. $\frac{1}{2}$ in tropical India. Many in Cape of Good Hope, where they are of succulent habit. 120 species in Europe—16 in Great Britain—7 in Sweden—and a few in U. States.

A milky secretion common to all of the family, varying in quantity—those having the most abundant quantity are the most active. It is excitant, in a few plants; aromatic, often strong—where nauseous, is acrid and pungent. The hairs of some species sting.

Cascarilla (*Croton*) is aromatic.

Caturus spiciflorus, tonic.

Mercurialis annua—the leaves diuretic.

Ricinus communis, the root, diuretic.

Phyllanthus, several species diuretic and emmenagogic.

Croton tiglium, the wood

Buxus sempervirens, the leaves } antisiphilitic.

Cicca disticha, sudorific.

Mercurialis perennis—its juice emetic.

Croton tiglium }
Ricinus communis } the seeds Carthartic.

Many species of this family dangerous even in small doses.

Euphorbia Ipcacuanha, }
E. corollata, } U. States, medicinal.
E. hypericifolia, &c. }

Iatropa Manihot, yields a poison and tapioca; the albumen of the seeds is harmless but the embryo deleterious.

Caoutchouc pervades this family and also the *Artocarpeæ*.

Turnsol is also yielded by this family—is chiefly obtained from

Crozophora tinctoria; *croton tinctoria*.

Acalypha Cupamenti of India—root a cathartic.

A. Caroliniana } are native of the U. States—probably
A. } medicinal.

Aleurites ambinux, is esculent, (the fruit,) another species has intoxicating nuts.

Briedelia spinosa, a shrub of India, astringent.

Buxus sempervirens—the leaves kill the Camels in Persia.

Cicca disticha, }
C. racemosa, } the fruit cooling and sub-acid.

Cluytia collina—the Capsules are poisonous. (Roxburg.)

Codiaeum variegatum the root and bark acrid—the leaves sweet and cooling.

Commia Cochin chinensis, white juice, emetic.

Croton Eleuteria of Swartz, is the *Quina Blanca* of Vera Cruz, and probably the *Cascarilla* of commerce?

Croton tiglium yields *Grana molucca*, *emenagogue*. Ainslie. Drastic cathartic—dangerous.

C. perdicipes is the *Pe de Perdis*, of one province, the *Alcamphora* of other provinces, and *Cocallero* of others in Brazil: used in syphilis.

C. campestris, the root called *Velama do Campo*—purgative antisiphilitic there.

C. gratissimum—of Burchell has fragrant leaves, used by the Koras of the Cape of Good Hope as a perfume.

Elæococcæ, two species yield oil for burning and painting.

Euphorbia Gerardiana of Europe pukes in 20 grains of the root.

E. Antiquorum, } Produce the ancient *Euphorbium*; mixed
E. Canariensis, } with the *Bene* oil in India it is externally used in rheumatism, and internally in constipation.

E. Papillosa, purgative, (Brazil.)

E. Nerifolia, the juice of the leaves purgative, mixed with *margoza* oil externally in contractions from rheumatism.

E. Thymifolia, (India) in bowel diseases of children, and for worms.

E. Pilulifera, India, fresh juice in aphous affections.

E. Tirucalli—India—fresh juice vesicant.

E. heptagona—Virey says the *Ethopians* make a mortal poison from its juice for arrows.

Excoecaria Agallocha—India, according to *Rumphius* the juice poisonous externally to eyes—also the smoke of the burned wood.

Hippomane Mancinella—said to have killed persons who have slept under it. Its poisonous principle is volatile.

Hura crepitans, India, resembles *Excoecaria*.

Hyenananche globosa, used at Capc of Good Hope to poison Hyenas.

Iatropa glauca, India, the seeds yield an oil used by *Hindoos* in paralysis and chronic rheumatism—externally. Ainslie.

I. Curcas—the seeds purgative and occasionally emetic—yield an expressed oil externally useful in herptic affections and itch; diluted, in Chronic rheumatism. The Chinese black-japaned boxes are varnished with this oil boiled with oxide of iron.

Maprounea Brasilicensis, the *Marmeiro do Campo* of Brazil, the leaves yield a fugitive black dyc. The root in decoction medicinal, used in stomach complaints. M. Auguste St. Hillaire says the *Moprounca* has no white juice.

Pedilanthus Tithymaloides, } called *Ipecacuanha*, Jew bush
P. Padifolius, } or milk weed. Used in West Indies. The first emetic, the second antisiphilitic and emmenagogic.

Phyllanthus Niruri, the young shoots in India diuretic; the leaves bitter, Ainslie.

P. Emblica, the fruit when fresh made into pickles—dry is acid and astringent.

Sapium aucuparium, the juice poisonous; the fumes have poisoned.

Tragia involucrata, the root esteemed by Hindoo doctors, antisyphilitic. Ainslie.

The celebrated Teak, of which vessels are built in India, belongs to this family.

ERICÆ.

THE HEATH TRIBE.

Cape of Good Hope very abundant. Europe, North and South America within and without the tropics—sparingly in Asia and India. Astringent and diuretic.

Andromeda Mariana—U. States; medicinal.

A. ovalifolia, poisonous to goats in Nipal.

Epigæa repens U. States,
Kalmia latifolia,
K. augustifolia,
K. glauca, } U. States, poisonous.

Rhododendron ponticum,
R. maximum U. States, } poisonous.

Ledum palustre renders beer heady.

Arbutus Uva Ursi diuretic anti-dysuric used according to Bigelow, in gonorrhœa of long standing.

A. Unedo—the fruit yields in Corsica a pleasant wine and yet if it be eaten in large quantities produces narcotic effects.

Gaultheria procumbens U. States,
G. Shallon.
Arctostaphylos alpina, and *A. uva ursi*, } have fleshy fruit,
Brossæa coccinea, } esculent.

The first named is anodyne in leaves, see my Veg. Mate. Med. U. S.

Arctostaphylos Alpina—diuretic, Decandolle remarks that this has been confounded with *vaccinium Vitis Idæa*: chemically he says, are very different,

The Azaleas, a beautiful group of American and exotic plants are here. Are good subjects for an inaugural dissertation.

GUTTIFERÆ.

THE MANGOSTEEN TRIBE.

The tropics; South America; Madagascar, require heat and humidity; none in continent of Africa.

Yields a viscid yellow acrid purgative gum resinous juice resembling Gamboge. This last may be set down as the type of product of the proper juice.

Stalagmitis Gambogioides—yields Gamboge.

Garcinia celebica, } a kind of gamboge.
Gambogia gutta, }

Dr. Hamilton thinks there is no reason for supposing Gamboge to be produced by *Garcinia Gambogia*.

The juice of Mamea in the West Indies destroys chiggers—the bark of many kinds is astringent.

Garcinia Mangostena—its berry is said to be the most grateful of all known fruits.

Pentadesma butyracea—the butter and tallow tree of Sierra Leone—yields a greasy yellow juice.

Calophyllum.

GENTIANÆ.

THE GENTIAN TRIBE.

Herbaceous plants.

All over the world, from perpetual snow of European Mountains to the hottest regions of S. America.

Intense Bitterness in stems and roots universally characteristic—often the leaves are very bitter.

Gentiana lutea, used in England and France.

G. rubra, in Germany.

G. purpurea in Norway.

G. Amarella,

G. campestris,

G. cruciata,

G. Peruviana called *Cachen* in Peru.

G. Chiryita, stomachic famous in East Indies.

Coutoubea alba,

Coutoubea purpurea,

Clora perfoliata,

The above are enumerated by Decandolle.

G. crinita,
G. ochroleuca,
G. saponaria,
G. crinita,
G. Catesbeii, } U. States Gentians.

G. lutea contains a good deal of sugar, (Lindley,) hence made into Brandy in some parts of Switzerland.

Villarsia nymphæides.

Menyanthes trifoliata.

Sabbatia angularis, } and other species in the U. States are
Chronia angularis, } bitter.

Chironia centaurium—bitter.

Frasera Walteri, U. States, a good bitter.

Lisianthus pendulus, in Brazil, the roots, febrifuge, bitter.

Tachia Guianensis. According to Von Martius there exudes from the axils of the leaves, little pellucid drops of yellow resin. The root is a febrifuge bitter. The U. States species of Gentian are worth, an inaugural dissertation.

GERANIACEÆ.

THE GERANIUM TRIBE.

Cape of Good Hope many. Europe, North America, Northern Asia and South America, few. Holland one genus.

An astringent principle, and an aromatic resinous flavour generally agreeable, pervade the family.

Geranium maculatum, U. States, astringent.

G. robertianum, in nephritic affections.

G. carolinianum, } U. States, worth investigation.

G. spinosa, burns like a torch, and gives out an agreeable odour. Lindley.

JUGLANDÆ.

THE WALNUT TREE TRIBE.

Chiefly in North America—one in West Indies and Persia—one in Caucasus.

Yields by kernels a drying oil; and by extract of one species, a cathartic principle.

Juglans cinerea, bark of the root, extract of it.

LOBELIACEÆ.

THE LOBELIA TRIBE.

West Indies, Brazil, Sandwich Islands, Cape of Good Hope, New Holland, Chili.

Milky plants for the most part; of suspicious character; often dangerous.

Lobelia syphilitica, diuretic,

L. cardinalis, acrid, not clearly ascertained, } U. States.

L. inflata, poisonous, emetic.

L. tupa, Chili, poisonous.

L. longiflora, West Indies, poisonous, called Rebenta Cavallos. Internally acts by violent purging, which is unresistible till death ensues.

LAURINEÆ.

THE CINNAMON TRIBE.

Tropics of either hemisphere—a few straggling to North America and Europe; (none in Africa except the *Cassytha*.) Teneriffe and Madeira, Madagascar, Isles of France and Bourbon. (Brown Congo, 464.)

Laurus cinnamomum, cinnamon, } genuine.
L. cassia, *cassia*, }

L. culilaban, } substituted for the above.
L. Malabathrum, }

L. cupularis, cinnamon of Isle of France.

L. Quixos, that of Peru.

L. cinnamomoides, that of Santa Fe. (Humboldt) Chin. For. 27, Eng. ed.

L. Pucher, the fruit is the sassafras nuts of London. Ibid.

L. camphora, yields much of the camphor of commerce.

L. Benzoin, spice bush of United States.

L. cinnamomum, also yields camphor.

L. a species in Sumatra, called by Dr. Jack *Parthenoxylon*, resembles sassafras, and yields an oil useful in rheumatism.

L. sassafras U. States yields a species of camphor.

L. parvifolia, }

L. globosa, } contain an acrid red or violet juice, like that

L. foetens, } in *Mysisticeæ*.

L. caustica, }

The family contains a volatile oil. Also a fixed oil which is supposed to constitute a chief part of the Avocado Pear of West Indies. (*Persea gratissima*.)

The same oil is in the greasy exudation of the fruit of *Litsea sebifera*.

This family may be called truly a camphoraceous one, yet all of the camphor of commerce is not produced by it. A very distinct kind from the common drug, is the product of the *Dipterocarpeæ*, (which see.)

This kind is pulverizable without the addition of alcohol,

and when pulverised does not become agglutinated into masses like that produced by the Laurineæ. There is a great difference, too, in its appearance, from common camphor. It is opaque, of a chalk white hue, in tabular plates or flakes, in which state it is found in the centre of the body and in the large branches of the tree, by splitting it. Similar masses of turpentine are occasionally found in the coniferæ. The liquid camphor lately introduced into commerce under the name of the essential oil of camphor, is the product of the Dipterocarpeæ and not of the Laurineæ.

The Camphor of the Labiatæ does not appear to differ in effects externally applied from those following the similar use of the Camphor of commerce. Of the Labiatæ the sage, marjoram, and rosemary, are said to yield the most. I think this incorrect. According to Proust 100 per cent is obtained from the oil of rosemary, and Majoram, $12\frac{1}{2}$ from oil of sage, 25 from Lavender. Camphor is yielded by the volatile oils of the Scitamineæ also, but neither from this family nor the Labiatæ is it procured for commerce. *Zedoary* *Maranta*, *galanga*, *Kœmpferia rotunda*, and *Zingiber officinale* are instances in the Scitamineæ.

The essential oil of camphor, mentioned above as recently introduced into commerce, has been brought to this city by Dr. M. Burrough, a most indefatigable and enterprising traveller, and judicious collector. By the prompt liberality of the Secretary of the Navy, I was authorised, (on representing to the Department, that Dr. B. had brought a few bottles of this very costly medicine, reputed in the East efficacious in the treatment of Cholera,) to furnish to every naval station (together with an equal quantity of his Cajuput oil, of genuine quality) several ounces of it. This was accordingly done, and though fortunately the Cholera has not as yet afforded the Medical Officers of the Navy opportunity to attest its efficacy, it still is highly creditable to the Secretary of the Navy, that he met the suggestion promptly, for the possible contingency of such a disaster. I have however used among the naval officers and men, the medicine, in affections of the stomach and bowels, with great efficacy and satisfaction. I recommend it, from experience in several instances, for gouty disease of the stomach.

LEGUMINOSÆ.

The Pea Tribe.

In every part of the world, except St. Helena and the island of Tristan d'Acugna.

The most extensive of all the families known—one of the most important to mankind as food, ornament, utility, and medicine.

The whole family wholesome, with a few singular exceptions.

Lathyrus Aphaca, the seeds noxious.

Citissus Laburnum, the seeds noxious, the leaves and branches of *Tephrosia* intoxicate fish.

Ornithopus Scorpiones, vesicant, (leaves.)

Coronilla varia, poisonous.

C. —emerus, acts like *Senna*.

Colutea arborescens, the same.

Cassia Acutifolia—*C. Lanceolata*—(of Delile and Nectoux.)

C. Senna—*Cynanchum Arguel*—compose *Senna*.

M. Delile says the *C. Lanceolata* of Arabia does not yield *Senna*.

C. Marilandica, American *Senna*.

The active principle is *Cathartine*, M. M. Lassaignes and Fenuelle discovered it.

Cassia Fistula.

Cathartocarpus Fistula.

Ceratonia Fistula.

Tamarindus Indica.

}

All purgative.

Ceratonia Siliqua.

Mimosa Fagifolia.

Inga Fœculifera of West Indies.

The last is called *Pois doux* in St. Domingo.

Glycyrrhiza Glabra—liquorice.

Abrus precatorius—(Ainslie)—same properties.

Genista, *Phaseolus*, *Pisa*, *Ononis*, *Guitandina Nuga*, and *Moringa*, *Anthyllis Cretica*,

Roots of the above are diuretic.

Dolichos tuberosus, *bulbosus*, *Lathyrus tuberosus*.

The bean esculent.

Cœsальpina Bonducella, *Æschynomene grandiflora*, *Geoffreya inermis* and other species, the barks bitter and tonic.

Æschynomene hispida of the United States is worth attention.

Guilandica Bonducella—the kernels are very bitter and tonic, (India.) When pounded small and mixed with oleum ricini, they are said by Ainslie to be an efficient external application in incipient hydrocele.

Acacia Arabica, the bark in India, powerfully tonic.

Mimosa saponaria has saponaceous qualities.

Decoction of the pods, used in washing as a substitute for soap.

Hedysarum Gyrans in India.

Singular phenomena exhibited by its leaves. See Darwin's Bot. Garden.

H. Sennoides—the root tonic, and stimulant—in India. Many species of this genus in the United States require investigation; all beautiful plants; worth cultivation on this account. Glycine Apios is another.

Algarobas, or Prosopises of the Western part of South America, have the pericarp of the fruit consisting almost altogether of tannin. The genus Acacia contains it in the bark. Lindley says, In 1824 some tons of the extract of the Acacia Bark were imported into Britain, for the use of tanners, from New South Wales.

Acacia Nilotica, Cassia Sabak; the pods used in Nubia for tanning.

Acacia Catechu—yields Catechu, Terra Japonica. See my "Outlines," vol. 2, p. 10.

Pterocarpus Erinacea, G. Kino.

P. Draco, G. Dragon.

P. Santalinus, Sandal Wood.

Erythrina Monosperma Gum Lac.

Hymenaea Courbaril—Gum Auime.

Acacia Vera—Gum Arabic.

A. Senegalensis—Gum Senegal.

Lindley says A. Senegalensis yields Gum Arabic.

Astragalus Creticus, A. Tragacantha, both yield Gum Tragacanth, and of course Cerasin: other species of Astragalus yield it.

Galega virginiana, U. States should be examined.

Manna of Arabia, according to Mr. Don, is produced by several species of Hedysarum, allied to H. Alhargi.

Dalbergia Monetaria yields a resin similar to Dragons Blood, Ainslie.

Butea Frondosa, B.—Superba, both yield a similar resin. Woods of this family important.

Robinia pseudo-acacia—Locust.

Mimosa (a species of it) Jacaranda or Rose Wood.

Cœsalpina Brazilensis, Brazil Wood.

Hæmatoxylon Campechianum, Logwood, yields Hematine.

Phaseolus trilobus—in India—Sem or Sembī—cooling sedative, antibilious tonic, used externally for weak eyes.

Trans. M. and P. Soc. Cal. 2—406.

Peas and Beans contain sulphur in various combinations, (hence the flatus has the odour.)

Carbazotic acid produced by nitric acid poured on Indigo.

Copifera officinalis and fifteen other species all yield Balsam Copaiava.

Copifera multijuga yields¹ the most.—Von Martius (Lin. Tran. 1826—p. 418,) called *Tacamahaca* in Venezuela.

Myroxylon Peruferum—Quinquino of Peru—yields Balsam of Tolu.

Arch. Richard says both it and balsam of Tolu are yielded by Myroxylon Toluferum.

Clitoria Mariana, U. States, ought to be examined.

C. Ternatea, the root is emetic.

Acacia Scandens of Java, emetic. (Horsfield.)

Psoralea Corylifolia in India tonic, and deobstruent.—Ainslie. We have species of this genus in the U. States worth attention.

Baptisia Tinctoria, Sophora Tinctoria, this is the wild Indigo of the U. States, see my Veg. Mat. of the U. States, roots and herbs, sub-astringent and antiseptic, cathartic and emetic also.

Cassia Auriculata in India, medicinal refrigerant. &c.—Ainslie.

Coronilla Picta, the leaves used as a poultice to hasten suppuration in India.—Ainslie.

Parkia Africana, the seeds roasted, fermented, partially putrid, washed, pounded, make a kind of Chocolate and sauce for meats. The farinaceous matter surrounding the seeds, forms a pleasant drink, and is also made into a sweet meat.—Ainslie.

Dolichos Pruriens—set down as mechanical anthelmintic; the seeds are eaten in some countries. Strong infusion of the root used in Cholera Morbus in India.—Ainslie.

Bankinia tomentosa—the dried buds and young flowers used in India in Dysenteric affections.—Ainslie.

Galega Purpurea is Tephrosia. Used in India, also, in dysentery, in lientary and tympanitis.

Indigofera—yields Indigo.

Indigofera Anil—pounded leaf used in hepatitis.

Coumarouma Odorata—Tonka Bean contains a peculiar

odoriferous principle called Coumarin.—Turner says Vogel mistook it for Benzoic Acid, which it is not.

Gleditsia Triacanthos—Locust.

LINEÆ.

The Flax Tribe.

Europe and northern Africa, N. and S. America, 2 in India and 1 in New Zealand.

Remarkable for their tenacious stringy fibres and mucilaginous and oily seeds; generally diuretic.

Linum Usitatissimum.

L. Catharticum, a purge.

L. Virginianum, U. States.

LABIATÆ.

The Mint Tribe.

In temperate regions, in hot, dry, exposed situations, hedge-rows, meadows, wood-sides, and groves.

Tonic Cordial, Aromatic, Stomachic properties, owing to a bitter principle and a volatile oil; not one single poisonous, suspicious, or even unwholesome individual in the family.

Lavandula Officinalis.

Origanum Marjorana.

O. Vulgaris.

Salvia Sclarea.

L. Officinalis.

S. Lyrata—U. States. Medicinal?

Hedeoma pulegioides.

Stachys Palustris, the roots esculent.—(Mr. Joseph Houlton.)

Lamium Amplexicaule.

Thymus Serpyllum.

Stachys Lanata, *Ballota Lanata*.

Mentha viridis, *M. piperita*, *M. Borealis*—U. States, and other species, perhaps all.

Ocimum basilicum.

O. febrifuga, *Sierra Leone*, febrifuge.

O. Album—India, juice in infantile catarrh.

Glechoma hederacea.

Rosmarinus officinalis.

Lavandula Carnosa, called *Anisochillis*, the fresh juice mixed with pounded sugar, in *Cynache*, India.

Origanum Dictamus—tonic and stimulant.

Phlomis esculenta—Bengal.

Cunila mariana.

Whole tribe contains camphor—in the oils of Sage and Lavender it may be abundantly separated.

MAGNOLIACEÆ.

The Magnolia Tribe.

A North American family—a few in the West Indies, India, China, and Japan.

Bitter tonic—flowers fragrant. Destitute of Aroma.

Magnolia tripetala, *M. Glauca*, *M. Cordata*, *M. grandiflora*, *M. auriculata*, U. States.

M. Excelsa, yields Champ, a fine, greenish yellow timber, India.

M. Yulan, in China, febrifuge, (the seeds.) Tsin-y.

Liriodendron Tulipifera.

MELIACEÆ.

The Bead-Tree Tribe.

East and West Indies, Africa, and South America, Syria.

Aromatic, tonic, stimulant, and astringent principle.

Canella alba, false winter's Bark, used in West Indies as a condiment.

Guarea Trichilioides, purgative and emetic. (Aublet.)

Melia Azedarach—*Melia Azedaracta*, Neemtree of India, Margosa tree, bitter, nauseous, anthelmintic. The pulp surrounding the seeds is supposed to be deleterious. Turpin says they do not poison dogs, and children eat them. I have heard of three deaths from their exhibition for worms in Delaware.* By distillation the root yields an inflammable gas fit for burning.

Trichilia Speciosa—yields in India a warm Oil of agreeable odour; used externally in paralysis and in chronic rheumatism.—Ainslie.

Swietenia Mahagoni. S. Febrifuga.

*From a newspaper publication.

MYRTACEÆ.

The Myrtle Tribe.

Hot countries, within and without the tropics, New Holland, South Sea Islands, East and West Indies. (South of Europe the common Myrtle.)

Fragrant aromatic pungent volatile oil in the whole family.

Caryophyllus aromaticus.—(English cloves.)

Calyptranthes Aromatica—the young flower buds like cloves.

Melaleuca Leucadendron. *M. Minor*—Cajuput Oil.

Eugenia Racemosa (*Stravadium*) bark similar to cinchona. Here are the Rose Apple, Guava Fruit, Jamrosade, Jaboticabeiras—in Brazil a fine fruit.

Eucalyptus Resinifera—yields a kind of gum Kino. Other species yield large quantities of tannin.

Punica granatum is here—bark of the root used for the tape worm, rind of the fruit astringent.

Glaphyria nitida, is called by the Malays, *Kayo Umur Panjang*, or tree of long Life—the leaves yield at Bencoolen a substitute for tea, called by the natives tea plant.

MALVACEÆ.

The Malva Tribe.

Tropics and hot parts of temperate regions.

Sida Cordifolia, mixed with rice in bloody flux.

S. Carpinifolia, in Brazil, the chewed leaves for wasp bites.

S. Mauritiana, emollient fomentations by Hindoo Doctors.

Abutilon esculentum, *Benseao de Deos*—the flowers a vegetable in Brazil.

Sphaeraclea Cisplatina, a decoction in Brazil in bowel diseases.

Pavonia Diuretica, same country, diuretic demulcent.

Malva Crispa, for wasp bites, (Cavanailles.)

Hisbiscus Esculenta Okra, Gumbo.

Althæ Officinalis, Marshmallows; the root contains a peculiar principle called *Althein*, doubtful.

Malva Alcea, petals astringent.

Hisbiscus Rosa Sinensis, Chinese eye brow blacking, and leather for shoes.

MYRICEÆ.

The Gale Tree Tribe.

Cold parts of Europe and N. America, tropic of S. America New Holland, Cape of Good Hope.

Aromatic Shrubs, some large. Astringent, tonic properties.

Comptonia Asplenifolia.

Myrica Cerifera and other species.

M. Sapida, size of a cherry, has a pleasant acid and is esculent at Nipal, (Don. p. 56,) the U. Species of *Myrica* would prove a good subject for an inaugural dissertation.

MYRISTICEÆ.

The Nutmeg Tribe.

Tropics of India and America, exclusively. Bark has a red-dish acrid juice which stains red; rind of the fruit very acerb a caustic—the albumen is the nutmeg—the arillus the mace—both contain a fixed fatty oil.

Virola Sebifera—contains a great quantity of the fatty oil, which may be extracted by putting the seeds into hot water.

Myristica Moschata, common East India nutmeg.

M. *Otoba*, Nutmeg of Sante Fe-

MONIMIEÆ.

South America.

All parts of the bark and leaves exhale a myrtle or laurel odour.

Ex.—*Dorstenia Contrajervia*.

MENISPERMEÆ,

The *Cocculus* Tribe—or Moon-seed Tribe.

Trees of America, not one hundred species in the whole.

M. *Cocculus*—*Cocculus indicus*—poisons fishes.

M. *Palmatum*—Colombo root.

M. *Gulancha*—Bengal—used by native India practitioners in various febrile and debile affections.

M. *edule* of Lamart—according to Decandole, eaten in Egypt.

Cocculus Plataphyla—By Brazilians, in intermittent fever and Liver complaint.

C. *Suberosus*—yields Picrotoxin.

C. *Cinerescens*—pure bitter and tonic.

Cissampelos ebractata—E. *Ovalifolia*—for bite of serpents.

C. —— *pareira*, *Arbuta Amara*, called *Pareira brava*—diuretic.

Orelha de Onca of Brazil, bitter, in intermittents.

A. Candicans of Cayenne—Leaves are intensely bitter.

NELUMBONEÆ.

Egyptian Bean Tribe.

Still waters in the temperate and tropical regions of northern hemisphere, in new and old world—very abundant in East Indies.

Cyamus nelumbo, } U. States.

Nymphae nelumbo, }

Lyamus speciosum, India.

Not eatable in India; the creeping stem, or root, is eaten in China as food.

The American plant differs in colour from the India, and is on many accounts deserving of an inaugural dissertation.

OLEACEÆ.

The Olive Tribe.

Temperate latitudes inclining towards the tropics, but scarcely known beyond 65° N. latitude. The genus common in N. America—two genera are European and Eastern plants. A few in new Holland and elsewhere within the tropics. One Ash, is in Nipal.

The family remarkable for yielding the only instance of the pericarp containing a fixed oil—most other plants contain it in the seeds, when it exists in them at all; yields *mannite*.

F. Ornus—Mannite differs from sugar by not fermenting with water and yeast.

The bark of olive and ash febrifuge bitter and astringent.

Fraxinus rotundifolio yields Manna.

Farnus.

Olea Europea; Olive;

Gum *Olea Europea*, contains a peculiar substance, called *Olivile*.

Ligustrum Vulgare, Privet;

Chiunonanthes Virginica, Fringe Tree;

Olea Americana. Olive U. States.

OXALIDEÆ.

The Wood-Sorrel Tribe.

North America, Cape of Good Hope, rarely in East Indies and equinoctial Africa.

Acid foliage, the acid oxalic; some are astringent and used in hæmoptysis.

Oxalis corniculata.

O.
O.
O. } United States.

In Brazil, several species are used in malignant fevers.
"The fruit of *Averrhoa* is intensely acid."—*Lindley.*

Araccacha in Columbia, is a species of *oxalis*, bears tuberous roots.

PODOPHYLLEÆ.

The May-Apple Tribe.

The marshes of North America.

Purgative.

Podophyllum peltatum.

Jeffersonia diphylla of Barton. [See my *Veg. Mat. Medica* United States, vol. 2.]

PHYTOLACCEÆ.

The Poke Tribe.

Africa, India, North America, within and without the tropics.

The effects somewhat resemble guaiacum.

Phytolacca decandra.

Powerful purgative, the plant; pulverized root, emetic; old leaves, acrid; young shoots, esculent.

PAPAVERACEÆ.

The Poppy Tribe.

Principally Europe, Siberia, Japan, New Holland. Tropical America contains a very few. In North America beyond

the tropic, several. The most are annual plants. The perennial species are in mountainous tracts of country.

Properties well known from opium, the type of the family. Narcotic. The oil of the seeds esculent.

Sanguinaria Canadensis, emetic, like sulp. cupri.

Argemone Mexicana }
Cardo Santo of the Brazilians } Emetic, (the seeds) used in Brazil as antidote for venomous bites.

Meconic acid and Morphia, } Produced by the

Papaver somniferum, &c.

Chelidonium majus, its juice medicinal.

POMACEÆ.

The Apple Tribe.

Almost every where; rare in Mexico; unknown in Africa, except on its northern shore. Not found in the southern hemisphere. One species in the Sandwich Islands.

Properties well known.

Malic acid the base.

Photinea dubia; the bark dyes scarlet.

Pyrus cydonia; the seeds mucilaginous.

P. Acuparia.

Crætegus is here.

POLYGALÆ.

The Milk-wort Tribe.

Most of the genera are limited to one or two of the five parts of the globe. *Polygala* is in all the five parts. Situation, wet or dry, high or low, is indifferent to this genus.

Bitterness in the leaves; milky juice in the roots.

Polygala senega; diuretic, stimulant, sialogogue, diaphoretic, sudorific, emmenagogue.

P. *Sanguinaria*, similar; peculiar principle called *Senegin* has been discovered by Gehlen in the root of *Polygala senega*.

M. Reschier has procured a principle he has called *Polygaline*, from the same plant; not known whether these two be identical.

Monina polystachya; Yallhoy of Peru, the bark used in dysentery.

Krameria triandra; tonic and astringent; the root contains gallic acid, but no tannin nor resin.—*M. Cadet.*

P. Ixina probably yields the same.

POLYGONEÆ.

The Buck-wheat Tribe.

Every part of the world.

Lindley remarks that sorrel on the one hand, and rhubarb on the other, may be taken as the representatives of this family as regards properties.

Coccolobo uvifera yields a kind of extract similar and it is said nearly equal, to Kino.

Polygonum Hydropiper, acrid.

The juice of Cataya, a species of polygonum, is used by the Brazilian Indians to purify and condense the juice of the sugar-cane. The infusion of the ashes is employed.

Rheumic acid is contained in the stem of rheum.

Rumex acetosa contains pure oxalic acid.

Rhubarbin is the active principle of the rhubarb.

Rheum palmatum.

R. undulatum.

P. fagopyrum; buckwheat.

P. tartaricum; used for food, (seed.)

P. aviculare; the seeds said to be emetic and purgative.

Meisner very properly doubts this.

P. barbatum; an Indian remedy for gripes in cholic.

P. hispidum; the leaves a succedaneum in South America for tobacco.—*Humboldt.*

PIPERACEÆ.

The Pepper Tribe.

Exclusively in the tropics.

Aromatic pungent healing properties; well known.

Piper nigrum; contains Piperina.

P. longum.

P. Cubeba; allays irritation in the mucous membrane of the urethra.

- P. Anisatum ; smells of anise—a decoction used to wash ulcers.
- P. Betel ; } The Betel-nut tree of the Malays—acrid and
- P. Siriboa ; } stimulating mascatory.
- P. inebrians ; narcotic—used to prepare an inebriating beverage.

PYROLACEÆ.

The Winter-Green Tribe.

Europe, North America, and the Northern parts of Asia.

Diuretic and stimulant tonic properties.

Chimaphila umbellata.

C. maculata.

Pyrola rotundifolia.

P. chrysanthia.

The genus *monotropa* is here.

The essential oil of winter-green is deleterious.

RANUNCULACEÆ.

The Crow-foot Tribe.

Europe more than one-fifth of the whole family ; one-seventh in North America ; one-twenty-fifth India ; one-seventeenth in South America ; few in Africa, except on the Mediterranean shores ; New Holland 18 species. Delight in a cold damp climate, and if found in the Tropics, are on mountains—unknown in the lowlands of hot countries.—*Lindley.*

Acridity, causticity, of a volatile kind, and poison.

Whole family suspicious.

Knowltonia vesicatoria ; the leaves blister. Southern Africa.

Ranunculus glacialis ; sudorific.

Aconitum napellus ; yields Aconite.

A —— *camarum* ; diuretic.

Helleborus foetidus ; anthelmintic.

H —— *niger* ; purgative emmenagogue.

Cimicifuga racemosa ; United States. Purgative diaphoretic stimulant.

Hepatica triloba ; has reputation, but I think undeservedly in consumption.

Delphinium consolida ; larkspur.

D —— *stavisagria* ; yields Delphinia.

D ——— elatum ; deleterious.

Adonis autumnalis; emmenagogue, Pallas. Bich, or Bish, an Aconitum of India, is a virulent poison. Dr. Hamilton refers it to *Caltha*.

Dr. Wallick considers the Bish, Vish, Visha or Alivisha, as the product of *Aconitum ferox*.

Caltha palustris; United States. Requires investigation.

Paeonia officinalis; the root is acrid and antispasmodic.

Ranunculus flammula ;

R ——— sceleratus } United States.
R ——— bulbosus } United States.

Their action is quick & powerful epispastics, and violent, and the ulceration difficult to heal—used in the Hebrides.

Clematis recta } The leaves used by Beggars, and also
C ——— *flammula* } the 3 preceding, to create artificial
ulcers.

Delphinia; first discovered by M. M. Lassaignes and Fenuelle, in union with oxalic acid.

Hydrastis Canadensis; United States, strong and sub-narcotic, smelling, bitter-tonic.

Coptis trifolia } United States.
Helleborus trifolius }

Pure and powerful bitter, used in aphæ of children, &c.
Zanthorrhiza apiifolia; United States, the wood and bark pure bitter.

Nigella sativa; the seeds resemble pepper in effect.

Delphinium stavisagria; the seeds caustic and vermifuge.

Aquilegia Columbina; tonic.

A ——— *Canadensis*; United States, deserves investigation.

Clematis Virginiana, is entitled to the notice of American physicians.

C. *Viorna* and other European species are well known.

ROSACEÆ.

The Rose Tribe.

East and West Indies and South America,—chiefly in the temperate or cold climates of the Northern Hemisphere.

None unwholesome; contains the astringent principle.

Tormentilla erecta.

Rubus fragaria,

R " *procumbens* } The root medicinal: fruit esculent
 R " *trivialis* } and good.
 R " *strigosus*, }
 R " *villosum*, } The root medicinal: fruit delicious.

Fragaria Vesca. {
 F " " U. States. } Fruit well known.

Agrimonia Eupatoria,

Brayera Anthelmintica, of Abyssinia, is said to be the most powerful anthelmintic in the world, on the authority of Dr. Brayer, after whom it is named. Two or three doses of the infusion are sufficient for the most obstinate cases of *taenia*.

Rosa Canina—the fruit astringent in chronic diarrhoea and other diseases.

R " *Damascena*—the petals yield a fragrant essential oil called *Attar of Roses*.

R " *Gallica*—petals astringent when dried rapidly. Used in leucorrhœa, debility, diarrhoea, &c.

Geum — Bennet,

Potentilla; *Cinquefoil* are here.

Many species native of the United States.

Gillenia stipulacea—emetick.

G. trifoliata—emetick.

Spiraea tomentosa—Hardhack, and other species.

RUTACEÆ.

The Rue Tribe.

South of Europe—rarely within the tropics.

Powerful odour and bitterness, both peculiar, pervade them.

Ruta officinalis—said to be emmenagogue anthelmintic and sudorific.

RHAMNEÆ.

The Buck-thorn Tribe.

Every where except in the arctic zone.

The greatest number of species dispersed through the hottest parts of Europe, United States, North of Africa, Persia, and India in the Northern Hemisphere; in Cape of Good Hope and New Holland in the Southern. *Ceanothus* is confined to North America.

Rhamnus catharticus; purgative in dropsy; the berries yield a green yellow dye.

Several other species are purgative.

Rhamnus infectorius } The fruit are the French berries
R. saxatilis } of commerce, *Graines d'Avignon*,
R. Amygdalinus } *Fr.*

Ziziphus Jujube } The Jujube, made into a pectoral paste,
Z. Lotus } much valued and agreeable.

Hovenia dulcis, China.

The peduncles become enlarged and succulent, and form an agreeable fruit, like a pear.

Sageretia theezans.

Used for tea by the poorer classes in China.

Ceanothus Americanus of the United States may be similarly used here.

Zizyphus Jujuba.

The bark, according to Rumphius, is employed in the Moluccas for diarrhoea.

SCROPHULARINEÆ.

The Fig-wort Tribe.

Three sub-orders in this family *Veroniceæ* 2. *Erinaceæ* 3. *Scrophularineæ*.

Abundant every where in the world, from the coldest regions to the hottest. In middle Europe they form one twenty-sixth of the flowering plants—in North America about one thirty-sixth, according to Lindley. In India, New Holland, South America, very common. *Terra del Fuego* contains them.

Acrid bitterish suspicious plants.

Scrophularia nodosa }
S. aquatica }
Gratiola officinalis }
G. Peruviana }
Calceolaria }
Digitalis purpurea.

The roots purgative and emetic.

Digitalis purpurea.

Dangerous, reduces the pulse, produces vertigo, debjection, increased saliva, urine, and death.

Mimulus guttatus.

The leaves esculent as a salad.

Torenia Asiatica.

The juice of the leaves considered on the Malabar coast a cure for gonorrhœa.—*Ainslie*.

Scoparia dulcis.

An infusion used by Indians of South America to cure agues.—*Humboldt.*

Veronica Virginica, United States, should be examined.

Vauquelin says the purgative property of *Gratiola officinalis* depends on a peculiar substance resembling resin, differing by being soluble in hot water.

Antirrhinum Linaria yields phosphorus.

Chelone glabra }
Mimulus ringens }
M. alatus } United States—should be investigated.
Scrophularias

STELLATÆ.

The Madder Tribe.

Northern parts of northern hemisphere.

Common weeds.

A colouring matter in the roots, and a diuretic property.

Rubia tinctoria.

R. mangista; Bengal madder.

R. noxia; poisonous.

Gallium aparine; diuretic.

G. verum; the flowers curdle milk.

Several United States species deserve to be investigated.

The grains of some species in Europe are torrified and used as coffee.

Asperula odorata; woodruff; fragrant when dried; diuretic.

A. cynanchica; somewhat astringent.

SPIGELIACEÆ.

The Pink-root Tribe.

Exclusively an American family; southern hemisphere within the tropics.

Spigelia marilandica; anthelinintic, sub-narcotic occasionally.

SAXIFRAGEÆ.

The Saxifrage Tribe.

Herbaceous plants, with small white and yellow flowers.

Europe and in other parts of the globe. On mountainous places. On old walls. Rocks and rocky hills.

More or less astringent, (Decandolle.)

Heuchera Americana.

Saxifraga granulata; and several United States species.

Parnassia palustris; Europe and the United States.

STYRACEÆ.

The Storax Tribe.

North and South America, within and without the tropics; China and tropical Asia.

Yields benzoic acid and fragrant oleo-resinous secretion, called storax.

Styrax officinalis } Gum benzoin.
S. benzoin, }

Halesia tetraptera; worth examination.

Symplocus; many of this genus yields a yellow dye.

Alstonia theiformis; leaves slightly astringent, used as tea.

SIMARUBACEÆ.

The Quassia Tribe.

Tropical America, India, and Africa; one plant in Nipal according to Lindley. Intensely bitter, without exception.

Quassia simaruba.

Q. excelsa.

Simaruba versicolor of St. Hillaire is called in Brazil, Pariba:

So intensely bitter that no insects assail it.

Brazilians use a tincture of it in brandy to destroy vermin, and as curative of venomous bites.

SALICARIÆ.

The Loosestrife Tribe.

Two sub-orders in this family by Decandolle.

1. *Salicariæ*.

2. *Lagerströmiaeæ*.

The first sub-order, Europe, North America, the tropics

of both hemispheres, one in New Holland; the second sub-order in South America and India. Astringent.

Lythrum salicaria.

L. verticilata, U. States.

L. Europeum.

L. Hunteri; in India the flowers are mixed with *Morinda* for dyeing, under the name of *Dhawry*.—*Hunter As. Res.* 4. 42.

Heimia salicifolia; violently diaphoretic and diuretic; flowers yellow; the family generally has blue or red flowers. By the Mexicans esteemed anti-siphylitic and called *Hanchinol*.

Lawsonia inermis; yields the Egyptian Henne; used by the women of Egypt to stain the fingers and feet pink; used in colouring morocco skins reddish yellow; does not contain tannin.

Ammania vesicatoria; the leaves are said to possess a strong muriatic smell; very acrid; used by native physicians in India to blister in rheumatism; vesicate in half an hour.—*Ainslie*.

The beautiful plant called in Pensacola and other parts of Florida Crape myrtle, is here *Lagerströmia*.

Ammania humilis and other United States' species of *Ammania* ought to be investigated.

SALICINEÆ.

The Willow Tribe.

Europe, Northern Asia, North America, scarce in Barbary, one in Senegal.

The willow, the poplar, and in Europe the sallow, are well known and valued for their peculiar wood; the bark is astringent of this family and of course tonic.

Populus tremuloides; febrifuge.

Salix herbacea; the leaves soaked in water, used in Iceland for tanning leather.

Sir Humphrey Davy found willow bark to contain as much tanning principle as oak bark.

The active principle is a vegeto-alkali, *Salicin*, analogous to *Quinia*.

SOLANÆ.

Herbaceous plants or shrubs, with alternate leaves. Flowers monopetalous; fruit succulent; seeds numerous. The geographical position is general, but especially within the tropics.

Yields three principles.

1. A narcotic principle.
2. An acrid principle.
3. A demulcent mucilaginous principle.

Atropa Balladonna
Datura Stramonium
D. Tatula, and other species
Hyoscyamus, niger
Nicotiana Tabacum
Solanum nigrum
Solanum Dulcamara

} Examples of plants yielding the narcotic principle.

Capisicum annuum, and other species of capsicum } Example of the acrid principle.

Verbascum Thapsus, example of the demulcent mucilaeg.

Gloriosa superba, acrid powers.

Helonias dioica, anthelmintic and bitter tonic (the root).
 The *Uvularias* of the United States should be examined.

TERNSTROMIACEÆ.

The Tea Tribe.

China, seven or eight, North America four, South America, sixty or seventy, beautiful shrubs or trees. East Indies twenty. Africa one.

Properties well known in Green and Bohea Tea, and in *Ceanothus* of the United States, but it is correctly remarked by Dr. Lindley that they are imperfectly known of the family.

Thea Bohea,
T. Viridis, and
 Species of *Camellia*

} Yield all the innumeral varieties of
 China Tea.]

Ceanothus Americana, U. S. Esculent and astringent.

Camelia oleifera—seeds yield salad oil.

C. Japonica and all its beautiful garden varieties well known, are here.

The fruit of a species of *Saurauja*—acidulous resembling Tomatoes in flavor.

Kielmeyera speciosa—the leaves employed in Brazil for fomentations, abound in mucilage. (Pl. U. S. 58.)

Wittelsbachia insignis (of Martius.)
Maximilianeae regia (of the same.)
Cochlospermum insignia (of Augst.
(St. Hillaire.

(St. Hillaire.

Called in Brazil *Batua do curvo*. Used in that country in decoction of the roots to heal internal absesses: they take it for all kinds of bruises. (Pl. U. S. 57.)

Gordonia Lasianthus is here.

Franklenia —— is here.

Ternstromia is here.

THYMELEÆ.

The Mezereum Tribe.

Sparingly in Europe and northern parts of the world, common in cooler parts of India and South America, abundant at the Cape of Good Hope and in New Holland. *Lindley.*

Bark of the family caustic, acting upon the denuded cuticle by exciting suppuration, and as a vesicatory applied to the sound skin—chewed, causes great pain in the mouth and fauces.

Daphne mezereum—common mezereon.

D. *Gnidium* —— dyes wool yellow. In South of Europe.

D. Lawreola ——— berries poisonous to all animals, but birds eat them with impunity.

Yields tough meshed inner bark.

The lace bark of Jamaica is the

D. —————

D. Bholua—soft paper made from it in Nipal.

Excellent cordage is made from this family.

Passerina tinctoria dies wool yellow in South of Europe.

Struthiola is here.

UMBELLIFERÆ.

The Umbelliferous Tribe.

Groves, thickets, plains, marshes, meadows, water-courses, wet places and waste places, chiefly in the northern parts of the Northern Hemisphere—also in the Southern.

De Candolle says there are 679 in the first, and 205 in the second, in the following proportions:

In the Old World,	663
In America,	159
In Australia,	54
In scattered Islands	14

The properties of the vegetable, exclusively of the fruit, is, *generally*, suspicious, and often very deleterious. The fruit (seeds) nowise dangerous, and often carminative and aromatic.

Aethusa cynapium, is the type of the toxicological herbage of this family; contains a peculiar alkali, called by its discoverer, Professor *Ficinus*, of Dresden, *Cyno pia*.

Apium graveolens, by culture is, however, esculent in the stems and roots.

Apium petroselinum; esculent in the leaves, the roots diuretic.

Oenanthe pimpinelloides } the tubers esculent.
Bunium bulbocastanum }

Ligusticum ajawain, of Roxburg, a veterinary medicine (the fruit) in India.—*Ainslie*.

Samphire, the herb, }
Skirret roots, } esculent by culture chiefly.
Carrot roots, }
Parsnip roots, }

Heracleum gummiferum has been heretofore supposed to yield *Galbanum*, but I am indebted to the author, *Don*, for an interesting pamphlet from *London*, within a week or two past, which places the fætid gums thus:

Dorema Ammoniacum yields *Ammoniac*, called *Oshac* in *Persia*. The *Bubon Galbanum*, he thinks, does not yield the *Galbanum*, and believes *Willdenow* mistaken in referring it to the plant *Heracleum*. It is, therefore, uncertain what plant yields *Galbanum*.

Heacleum giganteum of the United States is well worth an inaugural dissertation.

Anise, *Dill*, *Fennel*, *Coriander*, *Caraway*, are all here.

The *Umbelliferæ* of the United States require further investigation.

URITICEÆ.

The Nettle Tribe.

All over the world.

Fibres tenacious and stringy; leaves of some narcotic; flowers of others bitter and tonic.

Humulus lupulus, yields *Lupulia*.

Urtica dioica	}	nettles—their effects well known.
U. urens		
U. stimulans, of Java		
U. pilulifera		
U. crenulata		
U. canadensis		

Cannabis sativa; leaves narcotic. The Turks prepare *Malach* from it, which intoxicates; the Hottentots get drunk on it, and call it *Dacha*. A variety of this plant is supposed to yield a powerfully narcotic gum in Nipal, called *Cherris*, or *Cheris*.—*Ainslie*.

ULMACEÆ.

The Elm Tribe.

North of Asia, India, China, North America, Europe—in mountainous places.

Yields *Ulmin* in various proportions—*ulmus fulva* the largest quantity.
Celtis is here.

VALERIANÆ.

The Valerian Tribe.

North of India, Europe, South America, sparingly in Africa and North America; delights in temperate climes; anti-spasmodic, bitter, aroniatic, tonic, vermifugal.

Valeriana officinalis; }
V. Phu; } valerian the drug (root.)
V. Celtica. }
V. Jatamani; Spikenard of ancients.

Valerianella, Mâche, French.

Lambs Lettuce; common salad, England; eaten every day as a salad; the young leaves.

Red Valerian is eaten in Sicily in the same way.

VACCINEÆ.

The Bilberry, or Whortleberry Tribe.

Abundant in North America; scarce in Europe; not un-

common on high lands, Sandwich Islands; bark and leaves astringent tonic, and somewhat stimulating; fruit contains malic and tartaric acid; all esculent.

Oxycoccus macrocarpa }
Vaccinium oxycoccus }

Vaccinium dumosum

V ————— arboreum

V — stamineu

✓ ————— stamped

The fruits of the Vaccinium are very sweet; that of the cranberry very tart.

VIOLACEÆ.

The Violet Tribe.

Three suborders of this family.

1. Violeæ.
2. Alsodineæ.
3. Sauvageæ.

1st, in Europe, Siberia and America, and a few in the Asiatic tropics; abundant in South America, where they are shrubs—the northern species being chiefly herbaceous.

The second are exclusively in South America and Africa, with the exception of one in Cochinchia, according to Loureiro the *Pentaloba*.

The 3d, exclusively in Africa and South America.

More or less emetic, in roots.

Ionidium parviflorum; yields in South America, an ipecac.

I —— poaya; yields Brazilians, an ipecac.

Poaya da praia and poaya branea are the root of Ionidium Ituba of Kunth; is sold as ipecacuanha.

Conohoria Lobolobo; its foliage is used as a spinach in Brazil.

Viola canina; used in cutaneous affections.

Anchietea salutaris; purgative, in Brazil.
Sauvagesia erecta, is mucilaginous; used in Brazil for the eyes, in Peru for the bowels, and in the Antilles as a diuretic, in inflammation of the bladder of slight character; *Lindley*. Our native violets require further investigation.

VITES.

The Vine Tribe.

Two suborders in this family.

1. *Viniferæ*, or saramentacea.
2. *Leaceæ*.

The woods of the hotter parts of both hemispheres, particularly the East Indies.

Acid in the fruit; leaves astringent. Properties of raisins and wine well known. The acid of grapes is chiefly tartaric, with some malic. The sugar of grapes contains less carbon than common sugar, according to Turner.

WINTEREÆ.

Winter's Bark Tribe.

This small family is widely dispersed. Only ten in all are enumerated by Decandolle; of these, two are in New Holland, two in the hotter parts of America, two in the southern, and two in the northern territories of the same continent, one in China and Japan, one in New Zealand.

Illicium anisatum; the seeds carminative, India. They yield a fragrant essential oil. The *Anisette de Bordeaux* is flavoured with these seeds; the Chinese burn them in their temples.—*Ainslie*.

Drymis Winteri resembles cinnamon.

M. Cadet describes a bark by the name of *Melambo*, of similar properties.

Drymis granatensis is called *Casca d'Anta* in Brazil. Carminative in cholic; resembles *Drymis Winteri* in its tonic stimulant effects.

ZYGOPHYLLEÆ.

The Bean-Caper Tribe.

America yields *Guaiacum*, *Portiera* and *Larrea*. *Fagonia* in South of Europe, the Levant, Persia, India: *Zygophyllea* also in those countries and also in South of Africa and New Holland (according to Ropera): *Tribulus* in the old world, within and without the tropics; *Melianthus* in Nipal, and the Cape of Good Hope.

The whole of the *Guaiacums* are excitant; some are bitter and acrid, and are diaphoretics and alteratives. They all yield *Guaiacine*.

The hardness of *Lignum vitæ* is owing to the singular distribution of the ligneous fibres, each layer crosses diagonally the preceding. Lindley, who has first published this fact, says it was pointed out to him by Professor

Voight. The singular wood lately imported in this city for archers' bows, and which is manufactured into walking canes, has an occasionally oblique dove-tailing of its fibres, giving an artificial or painted look to the polished surface. It is a palm wood and contains silex.

SECOND GREAT DIVISION OF VASCULARIES.

MONOCOTYLEDONOUS PLANTS.

AROIDEÆ.

The plants of this family are herbaceous, with leaves sheathing at the base, flowers on a spadix, mostly enclosed in a spath, but sometimes naked or without it. They grow in tropical countries, where they are often arborescent. In the north of Europe and the United States, a few will be found, but they are herbaceous.

Yields an aromatic oil, which is carminative and anti-flatulent; hence its efficacy in cholic and dyspepsia.

Example—*Acorus Calamus*.—Common Calamus; the root in mastication in powder, or in infusion by hot water.

No proximate principle yet obtained from it.

Acorus belongs to the natural order, *Piperita* of Lin.

The Indian plant is different from ours; it is called by Widenow, *Acorus verus*; it is also a native of Poland, Flanders and Tartary.

Calamus Rotang.

ASPHODELEÆ.

The Asphodel Tribe.

Scattered over the world extensively. The Aloes in the southern part of Africa and in the West Indies. Two or three in Arabia and the East.

A bitter stimulant principle in the gummy viscid yellow juice; purgative in some, emetic in others.

Scilla maritima yields *Scillitina* (Vogel).

Aloes, different species. Drug Aloes.

Allium contains a peculiar principle; the tribe is diuretic and expectorant; free phosphoric acid in the onion bulb.

Dracæna Drago is Gum Dragon.

Asparagus officinalis is here. Yields *Aasparain*. (Turner.)

Aletris farinosa, U. States, is here. (Bigelow.)

Scilia lilio-hyacinthus, } The bulbs.

Anthericum bicolor, } Purgative. (Decandolle.)

COLCHIACEÆ.—SEE MELANTHACEÆ.

The Meadow Saffron Tribe, or Colchicum Tribe.

GRAMINEÆ.

The Grass Tribe.

Every where and well known.

The following I adopt from the arrangement employed by Nees V. Esenbeck in his account of Brazilian grasses, as subdivisions of the family.

1. Paniceæ.—Panicum, Paspalus, Cenchrus.
2. Olyreæ.—Luziola, Pharus, Olyra.
3. Saccharineæ.—Saccharum, Andropogon, Anthistiria.
4. Stipeæ.—Stipa, Chætaria.
5. Agrostæ.—Phalaris, Vilfa, Agrostis, Spartina.
6. Chlorideæ.—Pappophorum, Chloris, Eleusine.
7. Hordeaceæ.—Lolium, Triticum, Secale.
8. Festucaceæ.—Avena, Arundo, Gynerium, Cynosurus, Bromus, Poa.
9. Oryzæ.—Leersia, Oryza.
10. Bambuseæ.—Arundinaria, Bambusa, Streptochæta.

IRIDEÆ.

The Iris, or Flag Tribe, or Corn Flag Tribe.

The Cape of Good Hope, middle parts of Europe and North America, a few within the tropics, some in South America.

The rhizomas of many of them stimulating and purgative.

Iris florentina; night, fragrant by the smell of violets.

I. tuberosa; purgative.

I. versicolor,

I. verna, and other U. States' species, } purgative.

I. pseudo-acorus; the roasted seeds, according to Mr. Gray, are a good substitute for coffee.

Crocus sativus; the dried, stigmas, yield Polychroite, (is totally destroyed by solar rays.)

LILIACEÆ.

The Lily Tribe.

Temperate parts of Europe, America, Asia; the mountains of Mexico, (Calachortus is there,) New Holland, (Blandfordia is there.)

Erythronium dens canis, United States, medicinal.—*Bigelow.*

E—— Indicum; roots, in India, a veterinary medicine in strangury and fever of horses.

Polyanthes tuberosus; Tuberose, a singular phenomenon is exhibited by this fragrant plant. It emits its scent most strongly after sunset, and has been noticed in a sultry evening, after thunder, to dart small sparks, or lurid flame, in great abundance from such flowers as were fading.—*Ed. P. I. 3, 415.*

MELANTHACEÆ.

The Colchicum Tribe.

Cape of Good Hope, Europe, North America, Asia, tropics of India, and New Holland.

Every individual poisonous; *Colchicum* and *Veratrum* the types of the poison—they yield Veratria, which is errhine, effects the mucous coat of stomach and intestines.

Colchicum autumnale; the cormus is an acrid, active cathartic, narcotic and diuretic. The seeds also medicinal.

Veratrum album; similar to *Colchicum*.

V—— viride, United States, an acrid stimulant, emetic, and, by secondary effects, sedative.

SCITAMINEÆ.

The Ginger Tribe.

Tropical climes altogether.

Yields an aromatic volatile oily principle, without any thing poisonous in it. Hence the use of the roots and seeds in diet, and to give flavor to tinctures and other pharmaceutical preparations. Example 1. *Zingiber officinale*.—*Roscoe* and *Jaquin*. *Synonum*, *Amomum Zingiber*, Common Ginger, used in powder. The root is preserved in the East and West Indies, and lozenges are made of the powder in this and other countries. In common ginger nuts, (a kind of small round cake,) when properly made, without any, or with little butter, the ginger is useful in certain weak states of the stomach. There is an acrid resin in ginger, involved in a large quantity of fecula—acts on the nerves of the mucous membrane; possesses sialagogue properties.

Alpinia racemosa, } Galangale.
A. *Galanga*, }

Curcuma Zedoaria, } Zeodary.
C. *Zerumbet*, } Roots }

Zingiber officinale, } Roots } Zerumbet.
 } Ginger.

Amomum aromaticum—The seeds on the eastern frontiers of Bengal are used for Cardomums.

Matonia Cardamomum, } Is the plant yielding the lesser
Elletaria Cardamomum, } Cardamom seeds of the coast of
Ammomum Repens, } Malabar.

Ammonum Maximum, is another sort.

A. *Grana Paradisi*—seeds called greater Cardamoms.

Curcuma longa is a yellow dye well known.

Used by the native practitioners in India to cleanse foul ulcers. *Ainslie*.

C. *augustifolia*, yields excellent arrowroot fecula at Travancore, East Indies.

Globba uviformis—the fruit esculent.

Kempferia rotunda is here.

PALMA.

The Palm Tribe.

Tropical countries in immense numbers. Africa, Asia, New-Holland and America.

Yields wine, oil, wax, flour, sugar according to Humboldt; in addition: thread, utensils, weapons, food habitations, according to Von Martius.

Chamærops Palmetto, of the United States is the most northern Palm.

Sago is the fecula yielded by all except the Areca Cathecu, (Beetle Nut.) The

Sagus Farinifera produces the most.

Ceroxylon andicola is the wax Palm of Humboldt.

Calamus Drabo, of the eastern islands of the Indian Archipelago, yields a dark coloured, inodorous insipid resin called Dragon's Blood: is a finer kind than that from the Pterocarpus Draco.

MARANTACEÆ.

The Arrow-Root Tribe.

Greater part in the tropics of America and Africa; some in India; some wild beyond the tropics, yields universally an esteemed fecula called arrow-root.

Maranta arundinacea }
M — allouya } West Indies; the rhizomes of these
M — nobilis } three yield the fecula.

M — ramocissima, of East Indies, is the same; the fleshy cormus of some species of cannas, or Indian reeds, are eaten in Peru.

Phrynum dichotomum produces tough cordage.

Calathea, of South America; the leaves are worked into baskets.

Maranta arundinacea; juice efficacious against poisoned wounds. *Ainslie.*

SMILACEÆ.

The Smilax Tribe.

General except, and especially in Asia and South America.

Diruretic demulcent properties. Sarsaparilla is the type.

Smilax sarsaparilla; common sarsaparilla.

S — aspera, its substitute in the south of Europe.

S — China root, (nearly obsolete;) according to the Abbe Pochon, the Chinese often eat it instead of rice, and it contributes to make them lusty. *Ainslie.*

Medeola Virginica, of the United States; medicinal.

Trillium—different species; the roots emetic, berries mawkish taste; suspicious.

Convallaria }
Smilacina } Solomon's seal; are here.

Aromatic stimulant properties.

ORCHIDEÆ.

The Orchis Tribe

Lindley proposes seven sub-orders. 1. *Neottieæ*. 2. *Arethuseæ*. 3. *Gastrodieæ*. 4. *Ophrydeæ*. 5. *Vandeæ*. 6. *Epidendreæ*. 7. *Malaxideæ*. 8. *Cypripedæ*. These sub-sections are excellent, and very necessary in this extensive family.

In all parts of the world, except upon the verge of the frozen zone and in very dry climates. The product is a peculiar fecula, from the root called *Salep*, which consists almost entirely of a peculiar principle called *Bassorine*, (see *Umbelliferæ*)—very nutritive.

The family has a remarkable bizarre appearance in its flowers, resembling insects, monkies, helmets, soldiers &c.

Orchis mascula } and others, produce *Salep* of commerce.

O. morio }
Bletia verecunda, stomachic root.

A vegetable glue is obtained in Brazil by the inspisation (by boiling) of the viscid juice of the South American species, such as the *Catasetums*, *Cyrtipodiums*, &c.

Vanilla, a well known aromatic substance, is the succulent fruit of a climbing West India plant of this family.—*Lindley*.

The Orchidean plants of the United States are beautiful, and yields *Salep*. Would form an excellent subject for an inaugural dissertation.

SECOND GREAT DIVISION OF PLANTS.

Cellulares.

Group 1. *Fillicoideæ*. Group 2, *Muscoideæ*. Group 3, *Aphyllæ*.

The Fillicoideæ generally contains a thick astringent mucilage with a little aroma. Hence the plants of this family are usually esteemed pectoral.

Adiantum pedatum, and

Capillum Veneris, especially, have had reputation in breast complaints. The syrup of Capillaire has long been esteemed in Europe. A decoction of the plant is emetic.

The *Polypodium Calaguala* of Peruvians,

Polypodium crassifolium

Acrostichum Huacsaro

Are said to be solvent, deobstruent, sudorific, and anti-rheumatic. (*Pharmacœpia Madritensis* 1792.) also Lambert's Illustrations of the genus *Cinchona*.

Adiantum melanocaulon : the leaves are esteemed tonic in India. (*Ainslie.*)

Mertensia dichotoma, called *Samanbaya* in Brazil, affords pipe tubes for smoking.

Nephrodium esculentum, the roots are eaten in Nipal, according to Dr. Buchanan.

Angiopteris erecta, the bruised fronds are used in the Sandwich Islands to give fragrance to cocoa-nut oil. Very fragrant.

Pteris aquilina—the roots furnish the inhabitants of Parma and Gomera with food.

Polipodium phymatodes—the bruised fronds are used in the Sandwich Islands to scent coco-nut-oil, like the fern noticed above.

Aspidium felix mas, the Rhizoma has been analyzed by *M. Morin*, who found it to contain

1st, A volatile oil.

2d. A fat matter composed of elaine and stearine.

3d. Gallic acid and acetic acid.

4th. Uncrystallizable sugar.

5th. Tannin.

6th. Soap.

7th. A gelatinous matter insoluble in water and in alcohol. It contains also the sub-carbonate, sulphate and hydrochlorate of potash, carbonate and phosphate of lime, alumine, silex, and oxide of iron. *Brewster*, 2. 176.

Angiopteris erecta—the roots used for food in the Sandwich Islands under the name of Nehai.

Diplazium esculentum } *Cyathea medullaris* } *Gleichenia dichotoma* } Are all occasionally used for food in different countries.

Pteris aquilina } Have been used in the making of
Aspidium filix mas } beer.
A. fragrans is used for tea.

E R R A T A .

In the list of families p. 12, Ilicineæ should be placed among the Dicotyldeonous families.

EBENACEÆ should have been inserted among the natural families of Dicolytedenous plants.

Diospyros is found there. (The Persimon tree.)

OLIVILE—the peculiar proximate principle of Olives was omitted among the alkalis and proximate principles.

RHUBARBINE—the active peculiar principle of the Rhubarbs was also omitted in that list.

POLYGALINE } Peculiar vegetable principles from Polygala Sene-
SENEGINE } ga were also omitted.

COUMARIN—The peculiar vegetable principle of the Coumarouma odorata also omitted.

ALTHEIN—the peculiar vegetable principle of Althæa officinalis also omitted.

CAFFEIN—the peculiar principle of *Coffea Arabica*, was also omitted.

[APPENDIX.]

ADVERTISEMENT.

The Therapeutic Institute was commenced in 1831, by the patronage of nine gentlemen; seven of whom were students and doctors of medicine, and two of law, who solicited a Course of Lectures. It appears now to be permanently established, and justifies the expectation of continuing to prosper and increase in numbers, as well as estimation for the usefulness of the instruction obtained in it. No detail therefore, need now be given of its objects, which are well known to the students, on whose patronage and attachment to the Lecturer as a teacher, its support entirely depends. A few words may be said of the time and terms of the Course approaching.

The winter Course, on *Materia Medica*, *Botany* and *Toxicology*, will be of three months continuance, during which two Lectures each week, of each one hour's length will be given. The introductory will be delivered at 9 o'clock, A. M. on the 9th of November; and will be continued on Wednesdays and Saturdays thereafter at the same hour, 9 (A. M.) until the class shall be made up. The hour will then be fixed *by the class*. Two Lectures a week for three months from the first regular Lecture of the course, not including the Introductory, will be given at times to suit the engagements with the public Lectures. A part of the 4th month will be appropriated to the examinations.

The fee hereafter, to *each separate course*, will be eleven dollars. No deduction made for the *Prodrome*.

No extra charge for the certificate given at the end of each course, nor for the certificate of the matriculation of the perpetual pupil. This last is also an acknowledgement of the payment of the fee.

The Therapeutic Diploma is five dollars on drawing paper, and six on parchment—it is optional with the student to take it; none, however, but perpetual pupils are entitled to take it.

This diploma constitutes the only extra expense beyond the ticket fee.

The perpetual ticket, entitling the student to all the courses, and to take the Therapeutic Diploma if he wish it, is twenty-one dollars, provided it be taken at once, or during the first three weeks of the course, from the first regular Lecture.

The perpetual Pupil is considered a matriculated Therapeutist, and receives a certificate of this matriculation under seal of the Institute.

If a student who has taken a ticket to a single course, shall determine to become a perpetual pupil any time during that course after the first three weeks of it shall have been gone over, (calculating from the first regular Lecture, but not from the introductory)—then the charge for the perpetual ticket will be twenty-six dollars. This regulation is not retrospective, but will take effect on the first Monday of November, of this year.

LIST OF STUDENTS OF THIS INSTITUTE, FROM ITS
ESTABLISHMENT IN 1831, TO THE COMMENCEMENT OF THE
WINTER COURSE OF 1833-4.

Spring-and-Summer Course 1831.—(May and June.)

William F. Clemson, (Student of Law, of Phila.)
 Edward D. Gazzam, (now M. D. Un. of Penn.) of Penn.
 Student of Med.
 Abraham S. Hill, M. D. (Un. of Penn.) of Georgia.
 Daniel C. M'Leod, of Georgia, (now M. D. Un. of Penn.
 and assistant Surgeon in the Navy.)
 Volney Metcalf, M. D. (Un. of Penn.) of Mississippi.
 James Swaim, Student of Med. (Un. of Penn.) of Philada.
 Oswald Thompson, Student, now attorney at Law, of Philada.
 Coburn Whitehead, M. D. of Penn. } Un. of Penn.
 Alfred A. Woodhull, M. D. of N. J. } Un. of Penn.

Spring-and-Summer course 1832.—(May and June.)

H. H. Barker, Pennsylvania.
 Willie J. Eppes, Virginia, Stud. of Med. (Un. of Penn.)
 Maurice Fitz Gibbon, Virginia, Stud. of Med. (Un. of Penn.)
 James Hopkins, Pennsylvania, (Stud. of Pharmacy, Frederick
 Brown.)
 John Hazlehurst, Pennsylvania.
 A. F. E. Mickle, M. D. (of Un. of Penn.) N. Jersey.
 George B. M'Night, Dis. of Colum. ass't. Surg. U. S. Navy.
 Edward Peace, Penn. } Stu. of Med. Un. of Penn.
 George W. Peete, Va. }
 George W. Palmer, M. D. N. York, ass't. Surg. U. S. Navy.
 Henry S. Reynolds, M. D. (of Un. of Penn.) Va.
 Samuel W. Ruff, Virginia,
 Wm. A. W. Spotswood, Va. } Ass't. Sur. of U.
 Richard K. H. Sims, M. D. (Un. of Penn.) } S. Navy.
 Wm. Whelan, M. D. (Un. of Penn.)

Autumn Course, 1832—(September and October.)

[P.P.] Samel Barrington, M. D. (of Un. Penn.) Penn. ass't.
 Surg. U. S. Navy.

[P.P.] John F. Brooke, M. D. (of Un. of Penn.) Past ass't. Surg. U. S. Navy, Virginia.

[P.P.] Benjamin Bradly Beale, Alabama, (Stud. of Med. Un. of Penn.)

[P.P.] Edward Duffel, jr. Louisiana, (Stud. of Med. Un. of Pa.) Edwin Barry Eichholtz, Penn. (Stud. Pharmacy, Frederick Brown.)

[P.P.] Maurice Fitz Gibbon, Pa. (Stud. of Med. Un. of Pa.)

[P.P.] Victor L. Godon, Penn. (Stud. of Med. Un. of Penn.)

[P.P.] William Pennock Hansford, Virginia, (Stud. Pharmacy, Samuel P. Griffitts, jr.)

[P.P.] James Hopkins, Pa. (Stud. Pharmacy, F. Brown.)

[P.P.] George Green M'Dermott, Louisiana, (Stud. of Med. Un. of Penn.)

Anthony Isaacs Olmsted, Penn. (Stud. Pharmacy, F. Brown.)

[P.P.] Thomas A. Parsons, Georgia, (Stud. of Med. Un. of Pa.)

[P.P.] Geo. W. Peete, Virginia, (Stud. of Med. Un. of Penn.)

[P.P.] Henry S. Rennolds, M. D. (Un. of Penn.) Virginia.

[P.P.] Richard K. H. Sims, M. D. (Un. of Penn.) ass't. Surg. U. S. Navy.

[P.P.] John J. H. Straith, Virginia,

[P.P.] Austin M. Walker, Georgia,

[P.P.] Walter Williamson, Pennsylvania,

[P.P.] Walter Wade, Mississippi.

Wm. Whelan, M. D. (of Un. Pa.) ass't. Surg. U. S. N.

[P.P.] J. V. Freeman Walker, Georgia.

**LIST OF PUPILS, ATTENDING THE WINTER COURSE OF
1832-3—ENDING THE 2d OF MARCH, 1833.**

Eugene H. Abbadie, St. Med. Un. Penn. (Pa.)

[P.P.] Napoleon Constantine Barrabino, M. D. of Un. Penn. (Pa.) passed candidate for ass't. Surg. U. S. Navy.

[P.P.] Samuel Barrington, M. D.—U. S. Navy.

[P.P.] John F. Brooke, M. D.—U. S. Navy.

[P.P.] Benjamin Bradley Beale.

William Clarke, St. Med. Un. Penn. (Virginia.)

[P.P.] Edward Duffel, jr.

John Henry Edwards, St. Med. Un. Penn. (N. Carolina.)

[P.P.] Samuel Carswell Ely, St. Med. J. Col. (Pa.)

[P.P.] Willie Jones Eppes.

[P.P.] Maurice Fitz Gibbon.

[P.P.] Victor L. Godon.

[P.P.] James M. Green, M. D. Surg. U. S. Navy, (Pa.)

James Hagan, M. D. of Virginia. (Pa.)

[P.P.] William P. Hansford.

[P.P.] John J. Hawling, St. Med. Un. Penn. (Virginia.)

[P.P.] Richard Jones Harvey, St. Med. Un. Penn. (Pa.)

[P.P.] James Hopkins.

William S. King, St. Med. Un. Penn. (Pa.)

[P.P.] William G. Lewis, St. Med. J. Col. (Pa.)

[P.P.] George Green M'Dermott.

[P.P.] William M'Clenahan, M. D. of Un. Peen. (Virginia.)
Passed candidate for ass't. Surg. U. S. Navy.

[P.P.] Thomas Stith Malone, St. Med. Un. Penn. (Alabama.)

John Shaum Messersmith, St. Med. J. Col. (Pa.)

[P.P.] Thomas A. Parsons.

Charles Hayes Patton, St. Med. Un. Penn. (Alabama.)

[P.P.] George W. Peete.

Abel F. Picot, St. Med. Un. Penn. (Virginia.)

[P.P.] Henry S. Rennolds, M. D. passed candidate for ass't. Surg. U. S. Navy.

[P.P.] Samuel W. Ruff, M. D. passed ass't. Surg. U. S. Navy.

[P.P.] Waters Smith, M. D. Surg. U. S. Navy.

[P.P.] James Swaim.

[P.P.] John J. H. Straith.

[P.P.] George Terrill, M. D. Surg. U. S. Navy, (Virginia.)

[P.P.] Walter Wade.

[P.P.] J. V. Freeman Walker.

[P.P.] Wm. Whelan, M. D.—U. S. Navy.

[P.P.] Walter Williamson.

David M. Wright, St. Med. Un. Penn. (N. Carolina.)

**LIST OF PUPILS, ATTENDING THE SPRING AND SUMMER
LECTURES OF 1833, ON BOTANY, INDIGENOUS MATERIA ME-
DICA, AND TOXICOLOGY, ENDING JULY 1st. 1833.**

[P.P.] John Thomas Alexander, St. Med. Un. Pa. (Louisiana.)

William Armistead, St. Med. Un. Penn. (N. Carolina.)

[P.P.] Ralph C. Armstrong, St. Med. Un. Penn. (Geo.)

[P.P.] Henry A. Binford, St. Med. Un. Penn. (Alabama.)

[P.P.] Euclid Borland, M. D. Un. Penn. ass't. Surg. U. S. Navy, (Virginia.)

[P.P.] William S. Boutwell, St. Med. Un. Penn. (Virginia.)
 Lieut. Samuel L. Breese, U. S. Navy, (New York.)
 James Bryan, St. Med. Un. Penn. (Pennsylvania.)
 Joseph Carson, M. D. Un. Penn. (Pennsylvania.)
 [P.P.] Benjamin F. Chambers, St. Med. Un. Penn. (South Carolina.)
 Ethelbert A. Coleman, M. D. Un. Penn. (Virginia.)
 William G. Cook, M. D. Un. Maryland, (Virginia.)
 Francis W. Dancy, St. Med. Un. Penn. (Alabama.)
 [P.P.] Daniel Egbert, M. D. ass't. Surg. U. S. Navy, (New Jersey.)
 [P.P.] Edwin Barry Eichholtz, St. Pharmacy, (Penn.)
 [P.P.] George W. Evans, M. D. Un. Penn. (Penn.)
 Holton, Ganson, St. Med. (New York.)
 [P.P.] Calvin Graham, St. Med. Un. Penn. (Virginia.)
 [P.P.] David R. Gregg, St. Med. Un. Penn. (South Carolina.)
 [P.P.] Edward H. Henry, St. Med. Un. Penn. (Virginia.)
 [P.P.] Peter K. Hull, St. Med. Un. Penn. (Virginia.)
 John C. Jenkins, M. D. Un. Penn. (Pennsylvania.)
 [P.P.] Madison Johnston, St. Med. Un. Penn. (S. Carolina.)
 [P.P.] James S. Jones, St. Med. Un. Penn. (Georgia.)
 Edward H. Kennedy, St. Med. Un. Penn. (Pennsylvania.)
 [P.P.] William F. Kennedy, St. Med. Un. Penn. (Lou.)
 [P.P.] John W. Kirk, St. Med. Un. Penn. (S. Carolina.)
 [P.P.] Girard M'Leven, St. Pharmacy, (Pennsylvania.)
 [P.P.] Aaron Mauck, St. Med. Un. Pa. (Penn.)
 Newton May, M. D. Un. Penn. (Maryland.)
 S. Gratz Moses, St. Med. Un. Penn. (Penn.)
 [P.P.] Anthony Isaacs Olmstead, St. Pharmacy, (Penn.)
 [P.P.] Edward Poole, Esq. (Penn.)
 Lemuel B. Powell, St. Med. Un. Penn. (N. Carolina.)
 [P.P.] Henry W. Reese, St. Med. Un. Penn. (Virginia.)
 [P.P.] Robert B. Rennolds, St. Med. Un. Penn. (Virginia.)
 [P.P.] Charles Skinner, S. Med. Un. Penn. (N. Carolina.)
 [P.P.] James B. Slade, M. D. Un. Penn. (N. Carolina.)
 [P.P.] Turner H. Southall, St. Med. Un. Penn. (Virginia.)
 [P.P.] Richard Stubbs, St. Med. Un. Penn. (W. Indies.)
 Daniel Trigg, M. D. of Un. Penn. (Virginia.)
 [P.P.] Samuel Wilson, St. Med. Un. Penn. (Virginia.)
 [P.P.] Samuel Barrington, M. D. U. S. Navy.
 [P.P.] John F. Brooke, M. D. U. S. Navy.
 [P.P.] Edward Duffel, Jr. M. D. Un. Penn. (Lou.)

- [P.P.] Victor L. Godon, St. Med. Un. Penn. (Penn.)
- [P.P.] James M. Green, M. D. Surg. U. S. Navy, (Penn.)
- [P.P.] William P. Hansford, M. P. of Col. of Pharmacy, Philadelphia.
- [P.P.] John S. Hawling, St. Med. Un. Penn. [Virginia.]
- [P.P.] Geo. Green M'Dermott, St. Med. Un. Penn. [Loui'na.]
- [P.P.] Thomas Stith Malone, St. Med. Un. Penn. [Alabama.]
- [P.P.] Thomas A. Parsons, St. Med. Un. Penn. [Georgia.]
- [P.P.] Waters Smith, M. D. Surg. U. S. Navy, [Florida.]
- [P.P.] George Terrill, M. D. Surg. U. S. Navy, [Virginia.]
- [P.P.] Walter Wade, M. D. Un. Penn. [Mississippi.]

LIST OF PUPILS, ATTENDING THE AUTUMN LECTURES
OF 1833, ON BOTANY, INDIGENOUS MATERIA MEDICA, AND
TOXICOLOGY, ENDING 9TH OF NOVEMBER.

- [P. P.] John Thomas Alexander, St. Med. Un. Penn. (Louisiana.)
- [P. P.] Ralph C. Armstrong, St. Med. Un. Penn. (Geo.)
- [P. P.] Henry A. Binford, St. Med. Un. Penn. (Alabama.)
- [P. P.] Samuel Barrington, M. D., U. S. N.
- [P. P.] Thomas Williams Battey, St. Med. Un. Penn. (Geo.)
Robert Bridges, M. D., Philadelphia.
- [P. P.] William S. Boutwell, St. Med. Un. Penn. (Virginia.)
James Bryan, St. Med. Un. Penn. (Pennsylvania.)
- [P. P.] Benjamin F. Chambers, St. Med. Un. Penn. (South Carolina.)
- [P. P.] William Denny Downing, St. Med. Un. Penn. (Penn.)
- [P. P.] Daniel Egbert, M. D., As. Surg. U. S. N. (N. Jersey.)
- [P. P.] Edwin Barry Eichholtz, St. Pharmacy. (Penn.)
Clement A. Finley, M. D., Surgeon U. S. Army. (Ohio.)
- [P. P.] Victor L. Godon, St. Med. Un. Penn. (Penn.)
- [P. P.] Calvin Graham, St. Med. Un. Penn. (Virginia.)
- [P. P.] David R. Gregg, St. Med. Un. Penn. (S. Car.)
- [P. P.] Peter K. Hull, St. Med. Un. Penn. (Virginia.)
- [P. P.] John S. Hawling, St. Med. Un. Penn. (Vir.)
- [P. P.] Madison Johnston, St. Med. Un. Penn. (S. Car.)
- [P. P.] James S. Jones, St. Med. Un. Penn. (Georgia.)
- [P. P.] William E. Kennedy, St. Med. Un. Penn. (Lou.)
- [P. P.] John W. Kirk, St. Med. Un. Penn. (S. Carolina.)
- [P. P.] Aaron Mauek, St. Med. Un. Penn. (Pennsylvania.)
- [P. P.] Thomas Stith Malone, St. Med. Un. Penn. (Alabama.)

[P. P.] Anthony Isaacs Olmstead, St. Phar. (Penn.)
 [P. P.] Edward Poole, Esq. (Pennsylvania.)
 [P. P.] James Madison Parsons, St. Med. Un. Penn. (Geo.)
 [P. P.] Thomas A. Parsons, St. Med. Un. Penn. (Geo.)
 [P. P.] Henry W. Reese, St. Med. Un. Penn. (Virginia.)
 [P. P.] Robert B. Reynolds, St. Med. Un. Penn. (Vir.)
 [P. P.] Charles Skinner, St. Med. Un. Penn. (N. Carolina.)
 [P. P.] Turner H. Southall, St. Med. Un. Penn. (Virginia.)
 [P. P.] John V. Freeman Walker, St. Med. Jeff. Col. (Geo.)
 [P. P.] James M. Williams, St. Med. Un. Penn. (Mississippi.)
 [P. P.] William Zantzinger, M. D., Philadelphia.

Names of perpetual pupils of the Institution, from its foundation, up to November 1st, 1833.

P. P. OF AUTUMN, 1832.

Benjamin Bradley Beale, M. D.
 John F. Brooke, M. D., U. S. N.
 Samuel Barrington, M. D., U. S. N.
 William F. Clemson, Esq. (Philadelphia.)
 Samuel Carswell Ely, St. Med. J. Col. (Penn.)
 Edward Duffel, Jr. M. D., Un. Penn. (Lou.)
 Willie Jones Eppes, M. D.
 Maurice Fitz Gibbon, M. D.
 Edward Gazzam, M. D.
 Victor L. Godon, St. Med. Un. Penn. (Penn.)
 James M. Green, M. D., Surg. U. S. N. (Penn.)
 Abraham S. Hill, M. D.
 James Hopkins, St. Phar. (Philadelphia.)
 William P. Hansford, M. P., of Coll. of Phar. Philadelphia.
 Volney Metcalf, M. D.
 David M'Leod, M. D., Asst. Surg. U. S. N.
 George Green M'Dermott, St. Med. Un. Penn. (Louisiana.)
 G. B. M'Night, Asst. Surg. U. S. N.
 G. W. Palmer, M. D., Surgeon U. S. N.
 George W. Peete, St. Med. Un. Penn. (Virginia.)
 Thomas A. Parsons, St. Med. Un. Penn. (Geo.)

Henry S. Rennolds, M. D., Asst. Surg. U. S. N.
 Samuel W. Ruff, M. D. Passed As. Surg. U. S. N.
 R. K. H. Sims, M. D., U. S. N.
 W. A. W. Spotswood, U. S. N.
 James Swaim. (Philadelphia.)
 John J. H. Straith, M. D.
 Waters Smith, M. D., Surg. U. S. N. (Florida.)
 Oswald Thompson, Esq.
 Austin M. Walker, M. D.
 J. V. Freeman Walker, St. Med. Jef. Col.
 Wm. Whelan, M. D., Asst. Surg. U. S. N.
 Colburn Whitehead, M. D.
 Walter Williamson, M. D.
 Alfred Woodhull, M. D.
 Walter Wade, M. D., (Mississippi.)

P. P. OF WINTER, 1832-3.

Napoleon Constantine Barrabino, M. D. (Penn.) Asst. Surg.
 U. S. N.
 John J. Hawling, St. Med. Un. Penn. (Vir.)
 Richard Jones Harvey, now M. D. (Penn.)
 William G. Lewis, St. Med. J. Col. (Penn.)
 William M'Clenahan, M. D. Asst. Surg. U. S. N. (Virginia.)
 Thomas Stith Malone, St. Med. Un. Penn. (Alabama.)
 George Terrill, M. D., Surg. U. S. N. (Virginia.)

P. P. OF SPRING AND SUMMER, 1833.

John Thomas Alexander, St. Med. Un. Penn. (Louisiana.)
 Ralph C. Armstrong, St. Med. Un. Penn. (Geo.)
 Henry A. Binford, St. Med. Un. Penn. (Alabama.)
 Euclid Borland, M. D., Un. Penn., As. Surg. U. S. N. (Vir.)
 William S. Boutwell, St. Med. Un. Penn. (Virginia.)
 Benjamin F. Chambers, St. Med. Un. Penn. (S. Carolina.)
 Daniel Egbert, M. D., As. Surg. U. S. N. (N. Jersey.)
 Edwin Barry Eichholtz, St. Pharmacy. (Penn.)
 George W. Evans, M. D., Un. Penn. (Penn.)
 Calvin Graham, St. Med. Un. Penn. (Virginia.)
 David R. Gregg, St. Med. Un. Penn. (S. Carolina.)
 Edward H. Henry, St. Med. Un. Penn. (Virginia.)
 Peter K. Hull, St. Med. Un. Penn. (Virginia.)

Madison Johnston, St. Med. Un. Penn. (S. Car.)
 James S. Jones, St. Med. Un. Penn. (Georgia.)
 William E. Kennedy, St. Med. Un. Penn. (Lou.)
 John W. Kirk, St. Med. Un. Penn. (S. Carolina.)
 Girard McLeven, St. Pharmacy. (Pennsylvania.)
 Aaron Mauck, St. Med. Un. Penn. (Pennsylvania.)
 Anthony Isaacs Olmstead, St. Phar. (Pennsylvania.)
 Edward Poole, Esq. (Pennsylvania.)
 Henry W. Reese, St. Med. Un. Penn. (Virginia.)
 Robert B. Rennolds, St. Med. Un. Penn. (Virginia.)
 Charles Skinner, St. Med. Un. Penn. (N. Carolina.)
 James B. Slade, M. D., Un. Penn. (N. Carolina.)
 Turner H. Southall, St. Med. Un. Penn. (Virginia.)
 Richard Stubbs, St. Med. Un. Penn. (W. Indies.)
 Samuel Wilson, St. Med. Un. Penn. (Virginia.)

P. P. OF AUTUMN, 1833.

Thomas Williams Battey, St. Med. Un. Penn. (Georgia.)
 William Denney Downing, St. Med. Un. Penn. (Penn.)
 James Madison Parsons, St. Med. Un. Penn. (Georgia.)
 Robert L. Roddey, St. Med. Un. Penn. (S. Carolina.)
 George W. Thomas, St. Med. Un. Penn. (Georgia.)
 James N. Wingfield, St. Med. Un. Penn. (Georgia.)
 James M. Williams, St. Med. Un. Penn. (Mississippi.)
 William Zantzinger, M. D. (Philadelphia.)

NOTICE.

THE Valedictory to the autumn class, and the Introductory address to the winter course, will be delivered during the same hour, at nine o'clock on Saturday the 9th instant, at which time the certificates for the examinates and those for the autumn pupils, will be distributed. The Prodrome is a text book purposely written and printed by the Lecturer, for aiding the student's attention to the lectures. It will be ready for the class at that time, and will hereafter pertain to the tickets of every course. Students and others, not belonging to the classes can obtain it in the Lecture room at any time. The cost is one dollar and twenty-five cents.

Each member of the class has the privilege of bringing a friend to the successive lectures for two weeks from the first regular lecture of the course. He has the further privilege of bringing a friend with him at any time during the course, as often as he may wish to do so. These established privileges are mentioned publicly that visitors may feel freedom in coming with the pupils; stranger students are invited to visit at any lecture without introduction by the pupils.

¶ The Ninth street front door leads to the Lecture room, and as it is constantly kept shut (but not designedly fastened) during the cold season, should it be found fastened during the stated times for the room being open for either lecture, or study—which may happen by the accidental dropping of the dead-latch—those wishing to enter are requested to ring the bell without ceremony.

N. E. corner of Chesnut & Ninth street, }
November 1st, 1833. }





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